BRITISH MEDICAL JOURNAL

LONDON SATURDAY MARCH 23 1946

THE HEALTH PROBLEM IN BERLIN

(JULY, 1945, TO JANUARY, 1946)

BY

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As a political experiment in international co-operation the government of a city such as Berlin by four Allied Powers—with different outlooks and different aims—is unique. The importance of the success of such an experiment is widely realized, and it was thought that an account of the problems facing and the work done by the Public Health Section of the British Military Government would not be without interest. These problems will be described as they presented themselves to the Public Health Section. The situation was chaotic on arrival—in spite of the existence of a German administration, normally very efficient, struggling to resuscitate itself. It must be appreciated that it was always very difficult to obtain information as to exactly what was occurring, but anyone who saw the city last July and sees it to-day cannot but be struck by the general improvement of the health conditions.

General Situation

The story of Berlin during the year 1945 is well known. Until the Russian advance early in the year the city's Health Department had, in spite of the heavy bombing, managed to keep the health services functioning. In the early months of the year the city became more or less an operational area and disintegration started, culminating in complete chaos with the battle for Berlin and the city's capture on May 2. There then followed a period of Russian occupation, when military and political considerations were paramount and the health of the population was of secondary interest. The British troops arrived on July 4, and British military government began to function on July 12.

Berlin, a city with a pre-war population of 4,306,500, is governed by a "Magistrat," which includes a Health Department headed by a Medical Officer of Health. The city is subdivided into 20 districts, or Bezirks, each with its municipal authority and health department. Unlike the Metropolitan Boroughs of London, the Bezirk is not an independent authority, but comes completely under the control of the city's Magistrat.

The actual German administration was left unchanged by the Allied Powers, but each Power became responsible for a section of the city*—comprising a number of Bezirks, as shown on the accompanying map (see p. 425).

Control over the German Magistrat is exercised by a joint Allied body known as the Kommandatura. Policy is determined at meetings attended by the Commandants (the general officers commanding the four Allied contingents in Berlin). Technical matters are dealt with by committees of the Kommandatura, comprising a representative of each Allied Power. Meetings are held weekly, or oftener if necessary, when problems are discussed, and if agreement is reached appropriate instructions are sent—in the case of the Commandants' meeting, to the Magistrat of the city, or, on technical matters, by the committee concerned to the appropriate department. The four Allied Powers provide a chairman for the main meeting and committee meetings in rotation, each chairman holding office for one month. The Allied Power providing the chairman is responsible for the secretarial work of the Kommandatura.

The experiences of the different committees vary, but the Public Health Committee was generally successful in agreeing on all measures to be adopted. In such a committee the language difficulty is a real one, and agreements have to be couched in general terms; a certain latitude in interpretation is inevitable.

Like any other great city Berlin is not self-supporting, and obtains supplies from all parts of the country. Of particular importance from the health point of view is the food supply, which in normal times largely comes from the rural country surrounding the city. It is a cardinal principle that the four Allied Powers accept responsibility for feeding the population in their own sector. As Berlin is situated in the Russian zone the normal larder of the city is not available for the British, United States, and French authorities. The communications, with their respective zones for road transport, are along the autobahn from Berlin to the west. The nearest point in the British zone is Helmstedt, some 100 miles from Berlin, and transport is limited to this road. Military traffic is unrestricted, but German civilian traffic requires a Russian clearance before it can pass over the border. Rail transport from the west is now running, but there is only a single-track line functioning on the 80 miles between Berlin and the Elbe at Magdeburg. This line is under Russian control, and the fact that it is a single and not a double track reduces its carrying capacity some twenty times.

The above sketch of the conditions in Berlin is intended to give an idea of the background against which public health problems must be judged. It is now proposed to describe some of the main health problems encountered.

Staffing of Health Departments

It is well known that the Nazi party permeated the public services in Germany. The Allies all agree on the necessity for de-nazification, but the policies of the different Powers vary somewhat. The Russian policy insists on complete elimination of any party member. British policy recognizes that party membership may have been merely nominal, and allows such persons, after "screening" by Special Branch officers, to be retained in and appointed to office. (In certain categories—e.g., S.S.—removal is mandatory.)

The Russian policy was applied for two months before the British occupation. The medical officer of health of the city was an extremely capable man; of the Bezirks, one medical officer of health was an old but very experienced man, two were inexperienced and had got their position more on political than on professional grounds, and the fourth was "hopeless."

The medical officer of health described as "hopeless" fully justified the description, and attempts were made to find a substitute. The city medical officer of health recommended a suitable medical officer who had, unfortunately, become a nominal member of the Nazi party. This doctor was "screened" by Special Branch officers, and no objection to his appointment was made. He has proved himself a most capable official, in spite of a campaign of anonymous letters and

* The French took over their sector on Aug. 12, 1945. Previously this sector came under British administration.

posters on walls abusing both the British Military Government and himself.

Other similar difficulties arose. For instance, the Director—viz., the lay superintendent—of one hospital was found to be ignorant of the number of beds in his hospital—his only experience of the job being a short period in the hospital office as a clerk some years ago.

"Nazi-ism in reverse" constituted another problem. The fact that the Nazi system was one of the most abhorrent institutions known to mankind did not, in itself, make those who fell foul of it into saints! A large number of the finest Germans suffered from this system, but unfortunately some of the less reputable victims (or self-appointed victims) obtained positions of influence and started victimization of their rivals. This victimization took the form of dismissing persons from their positions on the grounds that they "belonged to the party." To prevent this victimization the British Military Government reserved to itself the power of dismissal. Cases frequently came to light involving such persons as hospital nurses who, when "screened" by Special Branch officers, were found to have been mere nominal members of the party, and in some cases had been forced into it.

This problem is stressed, as much criticism of British Military Government policy in connexion with de-nazification has arisen. The problem is a difficult one—especially for a technical service, such as public health, where replacements are not easily made; its solution is not simply deciding between black and white.

General Sanitation

In normal times Berlin had an extremely well organized system of water supply, sewage disposal, and refuse disposal. On the arrival of British Military Government the organization was chaotic and much of the equipment and installations had been damaged. The city obtains some 90% of its water from shallow wells and the remaining 10% from surface water. There are normally 87 interconnected pumping stations. No gravity reservoirs exist, the maintenance of pressure depending on the functioning of the pumps. It was estimated that in the city there were 3,111 known major breaks to the mains as a result of the bombing and fighting. The waste of water was enormous. In July the estimated measured consumption was 50 gallons per head, but the bulk of this water was running to waste. The pumping machinery worked intermittently, causing frequent negative pressure.

The sewage organization of Berlin consisted of three systems leading to sewage farms and sewage plants. There had been 2,323 known major breaks, and only some 20% of the sewage reached the disposal works. The rest seeped away into the sandy soil, but did not cause as much nuisance as might be expected. Its presence was, however, very obvious in the city's many waterways and canals.

The above description will make clear the danger of water contamination. The only radical cure was the complete repair of the water and sewage systems, and such work was given the highest priority by the Public Works Department. By January 106 major defects to the water system and 399 sewage defects remained to be repaired. As a stop-gap measure the water was chlorinated. It was necessary to get quadripartite agreement to such a measure; this caused some delay in its inception. The water was examined by the "Reich Institute for Water- and Air-Hygiene" for signs of contamination, and by a British Army hygiene section for the presence of residual chlorine. Results were also checked by a British mobile laboratory, and were more or less consistently satisfactory after heavy chlorination. All water for British troops was specially chlorinated in military water-carts, etc. As an additional precaution the population was advised to boil the water—rather a counsel of perfection when it is remembered that very few people had even enough fuel for cooking. That these methods were effective is shown by the fact that, so far as is known, the typhoid epidemic which raged from August to November was not water-borne.

On our arrival the refuse-disposal system was more or less non-existent—the main trouble was that of transport. The Germans largely used a very cumbersome refuse-wagon requiring two heavy horses to move it; the only horses available were under-fed light-draught animals. Much of the refuse was normally taken outside the city by barges, but the waterways were blocked through war damage. At first refuse was disposed of by burial in gardens and open spaces. Where this was not possible refuse-carts were left at suitable points of the street and moved when filled to overflowing. It was necessary to clear the waterways before an adequately organized system could be instituted.

Casual fouling caused a certain amount of difficulty, which was not surprising, as few public lavatories were functioning and thousands of German refugees were thronging the city: a city of ruined buildings gives extensive opportunities for such habits! Energetic measures were taken to supply public lavatories, whose provision overcame this nuisance.

Nutrition and Fuel

The feeding of such a city as Berlin is an immense problem, and the difficulties, due largely to the transport situation and the cutting off of normal sources of supply, have already been briefly indicated. The conditions on arrival were bad. The casual observer going about the streets could not fail to note the high proportion of pale anaemic faces, and the extremely slow rate at which gangs of labourers, etc., did their work. As an illustration of this, some British medical stores supplied for the use of Berlin had to be unloaded, and it was estimated that 18 labourers were required. In actual fact 50 had to be pressed into service to get the work completed in the allotted time. The medical observer would have noticed other signs. The time spent by patients in hospitals was above the average. Dysentery had a case mortality of 28%. Cases of hunger oedema could be seen in almost any hospital.

The rationing system in force divides the inhabitants into five broad classes:

	July, 1945	Jan., 1946	
Class I: Heavy workers ..	2,443 cals.	2,443 cals.	
Class II: Workers	1,957 ,,	1,957 ,,	
Class III: Sedentary workers ..	1,581 ,,	1,581 ,,	
Class IV: Children up to 15 yrs.	1,500 ,,	—	
Class IVa: ,, ,, 6 ,,	—	1,375 ,,	excluding milk*
Class IVb: ,, 6–9 yrs. ..	—	1,473 ,,	excluding milk*
Class IVc: ,, 9–14 ,, ..	—	1,543 ,,	excluding milk*
Class V: Non-workers	1,200 ,,	1,504 ,,	

* Milk ration: Children up to 1 yr., ¾ litre per day.
,, 1 ,, 6 yrs., ½ ,, ,,
,, 6 ,, 9 ,, ¼ ,, ,,
Mothers: 2 months before and 4 months after birth, ½ litre per day.
Hospital patients: ½ litre per day.

It must be remembered that, apart from the black market, Berliners had little opportunity of supplementing their rations. During the autumn many Berlin families spent the week-end walking into the surrounding country and trying to buy extra food from farmers—who, in the Soviet occupation zone, must hand over 75% of their produce to the authorities, but are permitted to dispose of the other 25% as they wish. The more enterprising Germans certainly obtained some food in this way—mainly vegetables. Most of the food was obtained by barter and was liable to looting on the way back to Berlin. In addition to this innocuous type of black market, food could be obtained on the real black market, but at an exorbitant price. One doctor used most of her salary for two months to give her parents a present of a kilogramme of butter—at the cost of 800 RM. = £20 nominal value.

The Class V ration was, with grim humour, known by the Germans as the "death class" and did mean slow starvation. It is true that in actual fact comparatively few people had to subsist on this ration alone—the majority of families having someone on a higher scale. The housewife received a Class V ration card in spite of the fact that she had a most strenuous job in catering for her family. This important class of citizen always seems to get "more kicks than ha'pence."

The effect of a diet of 1,200 calories alone was well illustrated in one of the prisons. Even prisoners sentenced to hard labour received this diet and could obtain no supplement. Many had to be kept in bed as they were too weak to work. Some deaths occurred from malnutrition alone. There were many cases of hunger oedema. When oedema developed, the prognosis was bad and death usually occurred within 14 days, as it was quite impossible to provide the correct treatment. An improvement has now been made, and working prisoners receive Class III ration.

In the early days of the British occupation (July to August) it frequently happened that the ration cards were not honoured.

the scanty ration of fats being as much as two months in arrears. The nutritional condition of the population gave rise to much anxiety—especially with the knowledge that a winter had to be faced. Fortunately the mechanism of rationing was greatly improved by the Food Section of Military Government. By November the ration cards were being honoured and many improvements were made, which will be seen in the foregoing table. After 6 months of occupation the nutritional state of the people was much improved, and, while the winter is not yet over at the time of writing, it appears that serious epidemic disease may be avoided.

The protective foods—fats, milk, etc.—were extremely scarce. but in the early days the difficulty of the food situation was such that never once was the Public Health Section asked to advise on what foodstuffs should be brought into Berlin. This was not due to any lack of interest in the medical side of the problem—it meant that any food possible was obtained. In such circumstances nutrition experts will perhaps think leniently of the Public Health Section when it is stated that vitamins were not a priority demand ! By November the question could be considered, and the same policy of "get what one could" was adopted. Cod-liver oil and vitamin tablets were sent in from the British zone and distributed to children.

The above description of the food situation is based purely on observation and knowledge of the administrative machine. Berlin was visited by a British nutritional team in September, 1945, and the following is an extract from their report:

"Dietary information covering the previous week has been collected on 65 households (176 people) and dietary intakes of a single day's meals have been recorded for approximately 80 of these people. Few of these daily records equal the rationed amount the people alleged they were able to buy. There is no peak period of consumption as in Düsseldorf. The impression is that the availability and distribution of the rations are so irregular that even such basic foods as bread and potatoes are bought for the week and eaten up in a few days, after which time the dietary intake is extremely low until the next ration becomes available, not necessarily at the beginning of the next ration period. This impression is substantiated by values from one-day diet histories, which give figures ranging from 1,830 calories to 384 calories from rationed foods alone on a basic ration of 1,163 calories."

Fuel was also extremely short in Berlin. Supplies had to be brought from the Ruhr, and from Silesia in the Russian zone. In addition to being scarce, much coal was of the soft brown variety which was not suitable for many of the furnaces in use in the city.

Public utilities had the first call on fuel, after which hospitals had a high priority. Distribution was irregular at first; large hospitals were often running with only the most meagre reserves and had to curtail their work as no steam was available for sterilizing. The Economic Section of Military Government appreciated the importance of hospital needs, and by November a sufficient if not a liberal amount was available. Economies, such as not heating corridors, had to be exercised, but during the winter no hospital had to close down on account of lack of fuel.

The supplies available allowed no coal for domestic purposes, and the gas and electricity supplies were strictly rationed. Use was made of the extensive wood in the forests which surrounded Berlin. The population shivered, but, by the use of wood fuel and by whole families occupying one room only, deaths from exposure were prevented. The lack of fuel was probably one of the factors in the high death rate from respiratory disease among old people and infants. One result was a high incidence of skin disease in young children due to the lack of washing facilities.

Dysentery

When the British took over their sector in July they found a dysentery epidemic in progress. The reason was not far to seek: disorganized sanitary services, lack of personnel to advise on precautions, and flies breeding in the hot weather. The extent of the epidemic is shown by the following statistics:

	British Sector		Total for Berlin	
	Cases	Deaths	Cases	Deaths
July, 1945	1,203	62	4,332	906
Aug., ,, ...	985	170	3,398	1,014
Sept., ,, ...	279	57	1,764	608
Oct., ,, ...	217	84	923	268
Nov., ,, ...	256	57	1,029	215
Dec., ,, ...	233	77	871	276
Jan., 1946	55	11	306	51

The preventive measures adopted consisted in the reconstitution of the normal sanitary services. The improved conditions began to make themselves felt by August, but it was perhaps fortunate that this month was exceptionally cool.

The disease was mainly of the Flexner type. Of great interest is the high case fatality—28% of all cases from July to November. This high mortality can be explained by the poor nutritional state of the population. Visits to hospitals indicated that many of the fatal cases, although infected with the dysentery bacillus, were in fact cases of debility and malnutrition.

It must be remembered that treatment facilities were also lacking. No sulphonamide drugs were available, and the food supplies—black bread, etc.—did not allow proper dietetic treatment. Necropsies on many cases showed a large intestine with no inflammatory reaction, in spite of the fact that the Flexner bacillus had been demonstrated.

Typhoid Fevers

The extent of the typhoid epidemic in Berlin is shown by the fact that 12,740 cases occurred in the city (2,397 in the British sector) from July 12, 1945, to Jan. 12, 1946. It was known that many cases were occurring in July and August, and all doctors, nurses, and others likely to come into contact with the disease were protected by inoculation. About the middle of August, however, the number of cases suddenly increased, coincident with an increase of refugees, and it was felt that some more drastic measures should be taken.

Typhoid differs from dysentery by its long incubation period. It was estimated that some 80% of the cases were imported and were occurring among refugees arriving in the city from the east. The health conditions and standard of hygiene of these people were poor, and many cases resulted from direct contact. In view of the fact that between 700 and 800 cases were occurring each week, careful epidemiology was out of the question, and "shot-gun" methods had to be adopted. Compulsory immunization was decided upon, and an order was issued to this effect on Aug. 24—the other Allied sectors adopting the same procedure. It is interesting to note that such a, to us, revolutionary order was accepted by the German health authorities more or less as a matter of course. Stations were soon set up in the districts, and ration cards afforded an easy method of checking those who had been treated. Some delay was experienced in collecting supplies of vaccine and syringes, and inoculation started early in September. In the British sector over 90% of the population had been treated by the end of October.

Statistics of typhoid cases are given below:

	British Sector		Total for Berlin	
	Cases	Deaths	Cases	Deaths
July, 1945	79	—	245	22
Aug., ,, ...	444	27	1,688	177
Sept., ,, ...	688	53	3,922	406
Oct., ,, ...	508	65	3,059	336
Nov., ,, ...	354	61	1,979	328
Dec., ,, ...	240	47	1,452	256
Jan., 1946	84	17	395	75

Clinically the disease showed no special feature. The proportion of each type is not known, as bacteriological facilities were limited; the bulk of the cases were true typhoid. The case fatality was approximately 12%. The explanation of this more or less normal fatality rate is probably that the poor diet did not have such a bad effect on a disease for which a low diet is part of the treatment. Hospital accommodation was fully taxed and many patients had to be treated in their own homes.

The inoculation of the Berlin population against the enteric group was carried out in the presence of an epidemic, and there was evidence that the "negative" phase made people more susceptible. Doctors were continually reporting the occurrence of the disease in inoculated persons, with a considerable number of severe and fatal cases. One physician thought that the disease was just as severe in inoculated persons but that complications were less frequent.

At this stage it has not been possible to analyse results and assess the efficacy of inoculation in the presence of an epidemic. The point to be remembered is that it is likely that in the spring of 1946 large numbers of refugees will be passing through the city and inoculation ought then to prove its value.

Typhus

The advances made in the control of epidemic disease cannot be better illustrated than by Berlin's experience of typhus since July, 1945. Apart from the fortunate fact that it was summer-time, British Military Government found a stage that seemed to be set for a large-scale epidemic. The chaotic and semi-famine conditions have already been described. In addition there was an extensive movement of population from the eastern districts, where typhus was known to be prevalent, into a community which had no immunity against the disease.

A few cases were reported in other sectors of the city towards the end of July. It was known that the refugees who arrived were lousy, and arrangements were immediately made for their delousing: nothing could be done with those who "filtered" in to relations. Fortunately the Berlin population has a high standard of hygiene. Effective delousing was made possible only by the use of D.D.T. and the provision of necessary dusting equipment—from Army sources. R.A.M.C. sanitary officers and N.C.O.s soon taught the German health department staff the necessary technique and supervised the work. Without D.D.T. dusting, louse control would have been almost impossible, as most disinfection stations were damaged and fuel was difficult to obtain.

There was not enough typhus vaccine to carry out a widespread inoculation campaign, but this protection was given to doctors, nurses, refugee workers, and others likely to come in contact with cases. This was completed by the end of September.

A number of cases occurred in the other sectors, but the British sector remained free until the end of October, when some 10 cases or suspected cases occurred among refugees. Since then a few cases have been occurring every week, but there has been no epidemic outbreak. All cases in the British sector, with two exceptions, were infected before arrival. The eastern part of the city had the largest number of cases, partly because west-bound refugees arrived in this sector, and partly because the conditions of overcrowding were worse owing to more extensive damage.

The following statistics cover the first 6 months (July 12, 1945, to Jan. 12, 1946) of British occupation:

	British Sector		Total for Berlin	
	Cases	Deaths	Cases	Deaths
July	1	—	1	—
Aug.	1	—	18	3
Sept.	2	1	26	7
Oct.	2	—	27	1
Nov.	4	2	25	4
Dec.	20	6	126	21
Jan.	7	3	61	14

Clinically the disease was moderately severe, with an 11% case fatality. Typical exanthemata were only rarely seen, and perhaps the most striking symptom was the "typhoid" state and delirium—a fantasy of one German P.O.W. returning from Russia being that he was the Tsar. The Weil-Felix test was used throughout for diagnostic purposes. Convalescence was slow—not surprising in debilitated patients.

One German physician who had much experience of typhus gave it as his opinion that the disease had not become more widespread because lack of fuel caused all German households to be cold and the low temperature discouraged the louse from migrating. Be that as it may, the occurrence of typhus was more or less inevitable in Berlin. The limitation to sporadic cases rather than an epidemic is a great tribute to modern preventive methods—especially as, while exact information is not available, reports indicated that the disease reached epidemic proportions in certain other cities in Eastern Germany.

Venereal Disease

Many lurid articles have appeared in the lay press with regard to prostitution and venereal disease in Berlin, and it cannot be denied that the position was bad. The Germans had experienced a rise in incidence on account of war conditions, as had occurred in Great Britain. As already noted, the health services had been completely disorganized; Berlin had been the scene of much fighting, and after its capture the inevitable licence and promiscuity took place. Families had been separated, and many women had no news of their menfolk for months. Food was desperately short, and many were no doubt driven to prostitution to obtain extra nourishment.

It is very difficult to obtain accurate figures of the incidence. A survey in one district disclosed the fact that 10% of the total female population were infected with venereal disease. It is likely the incidence was even higher, and has been put at 40% of the total female population.

The problem resolved itself into the tracing of infected females and ensuring they were treated. A "Vice Squad" of British military police was formed to work with the German civil police in tracing the contacts of Service cases. At first the proportion traced was small, but after the system was properly organized about 80 to 90% of contacts were traced. These persons were, if infected, retained in a special hospital till rendered free from infection.

A variant of this method was the organization of raids on "black spots"—e.g., notorious cafés where much "picking up" took place. The war has not altered completely the habits of a city, and many of the "black spots" were well known to the German criminal police. Other "black spots" developed owing to the presence of Allied troops. When a raid took place all women who could not produce a suitable identity card or were "known to the police" were apprehended and medically examined by the German health authorities. It is probable that many "amateurs" have been missed by this method, but the results of some raids are interesting:

	No. of Women Sent to P.H. Dept. for Examination	No. of Cases of Syphilis	No. of Cases of Gonorrhoea
Sept., 1945 ..	247	10	60
Oct., ,, ..	52	—	3
Nov., ,, ..	52	1	2
Dec., ,, ..	273	10	53
Jan., 1946 ..	238	14	71

The raids did not seem to cause much resentment among the German population. Except for a few instances, all were carried out with almost excessive politeness on the part of everyone concerned. No doubt the presence of British military police had a deterrent effect on any male partner who was inclined to be truculent. After a number of raids had been made in a particular district the proportion of women found infected decreased.

Such raids might not be tolerated in normal times, but, in the peculiar situation of Berlin in the autumn of 1945, it is considered the results justified this procedure.

Another factor in encouraging the spread of the disease was the inadequacy of treatment facilities. In Berlin the system of public V.D. clinics has not been developed as in Great Britain, and most of the treatment is in the hands of specialist doctors, who see patients in their own consulting-rooms. Such doctors were short of sulphonamides. British stocks were brought into Berlin, but it was impossible to supply such drugs to doctors working privately, as there was a flourishing black market in this commodity. A compromise was effected by issuing drugs to the health departments and insisting that they supplied drugs only to recognized hospitals and centres set up for the purpose. The illicit treatment of venereal disease by black-market drugs undoubtedly caused the development of many sulphonamide-resistant cases.

Refugees

The end of hostilities brought with it the necessity for returning millions of people to their homes. Allied nationals —"displaced persons"—were given priority over Germans, and in the British zone their care absorbed most of the energy of the Military Government detachments. In Berlin "displaced persons" never constituted a problem, as they were few in number, but the German refugee question very soon began to cause much worry. Food was short and additional mouths to feed threw a great strain on the available food supplies.

Attempts were made to prevent refugees coming to Berlin at all unless they were bona-fide residents of the city. In theory their entry was forbidden, but in actual practice they came in large numbers. Early November was probably the peak period, and it was estimated that they were reaching the city at the rate of 20,000 a day, of whom some 2,000 remained in the city. As a matter of interest, the population increased from 2,947,500 in August to 3,038,777 in December; a considerable number never registered.

The problem was one of refugees from the east. This point is stressed, as the British authorities had no control over and very little information concerning the source of refugees—the ceded territories—or their entrance into the eastern part of the city. Refugees arrived in the city by train and on foot. The conditions of rail travel were beyond description. An everyday sight was family groups, usually without any menfolk, trudging through the streets carrying their belongings on their back or, if lucky, on hand-carts. Accounts have appeared in the lay press about the terrible conditions of these people: these reports, although somewhat sensational, gave essentially a true description.

In some of the refugee camps that, as described later, were set up it was possible to see sights which showed only too well the aftermath of war. Sick-bays were provided, and they were largely occupied by moribund cases which hospitals would not accept. One curious sign was the unemotional way in which a mother with perhaps four children would state that she had heard nothing of her husband for months or even years. Many seemed to have lost all normal human emotions.

When the stream of refugees began in August it was imperative that something should be done, and refugee camps were set up in the British sector under the supervision of the Displaced Persons Section of Military Government, which was responsible for dealing with the refugees. These camps were run by the Germans themselves—much credit going to a number of German Red Cross workers. Conditions in the camps were not good, but they did provide the minimum of care and, what was more important, prevented large numbers of potential disease-carriers from becoming lost in the city. Typhus was an ever-present danger, and the concentration of refugees in camps allowed effective delousing with D.D.T. powder.

With the co-operation of the authorities of the British zone, many refugees were evacuated to the west in October. Towards the end of this month and early in November the numbers increased alarmingly: one camp for 1,500 at one time housed almost 8,000 people, and it was essential to make definite arrangements for dealing with them. It would have been preferable, from the point of view of the city, to prevent the arrival of refugees altogether; but such a course was impracticable, and it was necessary to set up camps where refugees could be under control. By January, 1946, accommodation for some 10,000 had been provided. In addition a more or less regular evacuation of refugees to the west was arranged, trains running when the occasion demanded it. By December and January the numbers reaching Berlin had declined and the accommodation provided was not taxed.

The main problems were accommodation and feeding. Accommodation in a heavily damaged city like Berlin was not easy to find, but use was made of barracks, etc. Until enough camps were set up, large numbers disappeared "underground" and lived in cellars and rooms in bombed buildings. Many appeared from nowhere when there was any chance of evacuation to the west. Refugees were not given ration cards, but

were fed from soup kitchens at the camps. In the estimated requirements of the city the Food Section had a 10% reserve which was available for such needs.

From the medical point of view the refugees caused many problems. They brought with them much disease—some 80% of the typhoid and almost all the typhus cases. Many suffered from debility and took up much hospital accommodation. The minor-treatment rooms and sick-bays in the camps required medical supplies at a time when the shortage was acute. Lacerated feet in undernourished people were particularly difficult to treat.

Another problem was the returning prisoners of war passing through Berlin. The responsibility for such men belonged to British Troops Berlin, and a transit camp was set up on the outskirts of the city. The Public Health Section arranged for a near-by civil hospital to admit any needing hospital treatment. Many had infected wounds necessitating a long stay in hospital. Anyone wishing to see to what a condition the once proud Wehrmacht, in ragged uniform, had fallen had only to visit this camp. It would discourage the most belligerent from wishing to take the risk of starting a war.

The subject of refugees has been described fully, even though the responsibility was not merely a medical one. It showed the aftermath of war at its worst. Many more refugees are still to be moved, but it is to be hoped that the agreement to move people in a more humane and orderly fashion will be carried out, as the terrible conditions of the autumn of 1945 must lead to bitterness.

Good work was done by both Allied and German authorities and voluntary societies in the relief of suffering, under difficult conditions. On the British side, mention will be made only of the fine work of the Friends Ambulance Unit stationed in Berlin, and the way in which the ordinary British soldier gave help to refugees with whom he came in contact—far beyond what mere duty demanded.

Personal Health Services

The first stage in the development of the modern health service dealt with problems of environmental hygiene and the control of infectious disease; the conception of personal health services was a later development. It is curious to note that in the rescue of the Berlin health services from the chaos into which war had thrown them the same sequence was followed, and only after some three months of occupation was it possible to give much attention to the personal health services.

As might be expected, tuberculosis has greatly increased. The environmental conditions—poor food, bad housing, etc.—encouraged its spread, and the lack of hospital beds prevented the isolation of cases. Like any modern city, Berlin owned many sanatoria outside its boundary, and such beds were now largely unavailable. Transport difficulties prevented use being made of institutions in the British, French, and American zones of occupation. A large tuberculosis hospital centre just outside the boundary of the city in the Russian zone was in use by the Red Army for military purposes.

The fact that very little could be done had to be accepted. It is true that a general improvement of living conditions and food supply was taking place, but no immediate steps could be taken. As many hospital beds as possible were made available for tuberculous cases. Persons who could produce evidence that accommodation in a sanatorium was available for them in some other part of Germany were granted travel permits, but there was always the feeling that the signing of such a recommendation merely absolved one of the responsibility of doing nothing. Undoubtedly some got safely to sanatoria, but it is certain many suffered from the rigours of the journey.

The following statistics for the city of Berlin are of interest:

1938: Incidence of tuberculosis per 10,000 per annum = 25·8
July 12, 1945, to Jan. 12, 1946: Incidence of tuberculosis per 10,000 per annum = 48·9

Maternity and child welfare clinics caused no special difficulties. It so happened that the premises in which such clinics were held had not been so badly damaged as to make them unusable, and the German health authorities soon got them working again. They were largely staffed by women doctors, which meant that there were no special staffing difficulties. The functions of the clinics are the same as in Great Britain. The Germans seem to use these clinics freely, and it is claimed that all children are either seen by health visitors or attend the clinics at least once. Some 70% of children under 12 months attend regularly. The work of the clinics was handicapped by the lack of medical supplies and supplementary nourishment. They served, however, a particularly useful function in instructing mothers how to make the best use of the child's ration.

In the British sector of Berlin there was no actual shortage of general practitioners, but they worked under considerable difficulties. Hardly any had motor-cars—even a medical officer of health 68 years old in a semi-rural district did most of his visits on a bicycle—and only a few had a telephone. Conditions are gradually improving, and doctors now receive priority in the provision of telephones, motor-cars, etc. Many minor difficulties over accommodation arose, but it was agreed that a doctor's house should not be requisitioned by the military, and arrangements were made for a special issue of fuel for heating surgeries.

Many specialists had been evacuated from their hospitals and others were prisoners of war. The hospitals soon tried to collect their staff again, and when anyone was specially required application was made to the Control Commission for this particular person. A considerable number of medical men thus returned to Berlin at a comparatively early date.

Hospitals

Hospitals, like other buildings, suffered from the effects of bombing and the battle for Berlin. While comparatively few hospitals or hospital blocks were completely destroyed by direct hits, all in the British sector had been damaged to a greater or lesser degree. A number of institutions outside the city were no more available for Berlin's population. The pressure on the hospital beds was great. In July there was a dysentery epidemic—shortly to be followed by a typhoid epidemic. The city was full of refugees with no homes who, if ill at all, had to be admitted to hospital; there were many wounded requiring treatment. There was another cause for the strain on the bed accommodation. Owing to the poor nutritional state of the population and the lack of drugs and supplies, many patients had to be kept in hospital longer than usual.†

The first step was to arrange for the repair of the hospitals, as in August it was estimated that 60% of the beds would be put out of commission in bad weather. It was agreed by all sections who had a call on labour and materials that hospital repair must have a high priority. There are in the British sector of Berlin a few large municipal and voluntary hospitals of over 500 beds, a considerable number of medium-sized hospitals of 100 to 500 beds, and many small hospitals of 50 to 100 beds. Many of the small hospitals are what in Great Britain would be looked upon as nursing homes. In September the Health Branch of the Control Commission initiated for the British zone of Germany and the British sector of Berlin a Winter Plan which, so far as Berlin was concerned, meant the finding of 2,000 more beds in the British sector. In a badly damaged city, buildings for 2,000 beds were not easy to find, but it was done. Equipment was the difficulty, but simple if not lavish equipment was sent up under British auspices from the British zone. This was immediately issued to these reserve hospitals.

The following statistics give the hospital position in July, 1945, to January, 1946. They refer to the British sector only:

	July, 1945	Jan., 1946
No. of hospitals over 500 beds	3	5
" " from 200 to 500 beds	5	9
" " under 200 beds	29	30
Total No. of hospitals in section	37	44

No. of beds available: July, 1945—5,817; Jan., 1946—9,143

By January, 1946, the position was such that, in the absence of epidemics, the hospital provision could be considered satisfactory.

† Sepsis in wounds was one of the commonest causes of long stay in hospital. Many German prisoners of war arrived on their way to West Germany in a terrible state—septic amputation stumps were frequently seen. The German hospital is normally a well-run institution, but one of the most noticeable features in wards being used for prisoners of war was the all-pervading stench of pus. It made one imagine one had returned to the pre-Listerian era.

Medical Supplies

In July there was an acute shortage of drugs and other medical supplies. The position was such that numerous hospitals had to curtail or stop their surgical work on account of a deficiency of anaesthetics. Sulphonamides were practically unobtainable in hospitals, and chemist shops were empty. The repercussions on a population suffering, among other things, from a dysentery epidemic need not be stressed.

The matter was so urgent that it was decided to take steps to relieve the position in the British sector. Early in August some 60 tons of mixed medical stores were received from British sources, and a British medical store was set up. On account of the extensive black market—one ampoule of penicillin would fetch the equivalent of £75—the drugs were issued to hospitals only. The system worked well, and by December some 500 tons had been brought in from British sources.

At the early meetings of the Kommandatura an attempt was made to develop a uniform drug supply policy for the city of Berlin as a whole. The idea was that the Magistrat would inform the Kommandatura of what drugs were short, and demands would be made to the four Allies, who would, so far as possible, agree on what each would supply for the city as a whole. It, however, was more or less impossible to get enough information from the city authorities. The British view was that an urgent need existed which could not wait until the actual or potential German stocks could be accurately determined. Complete agreement could not be reached on this point by all four Powers, and therefore the need of the British sector was met from British sources, other Powers dealing with their sectors in their own way. By December the hospitals in the British sector, to which issues were first limited, had an adequate if not liberal supply of drugs, and it was then possible to agree to the dispensing of out-patient prescriptions normally obtained from chemists.

The German pharmaceutical industry is a powerful one, and a number of big firms have factories in Berlin. They may soon begin to try to re-establish their production, and if the firms were regarded by the medical officer of health of Berlin as producing reputable and essential drugs the British Military Government would give such manufacturers assistance to obtain raw materials and finished products from outside the city.

Considerable stocks should soon be obtainable through normal trade channels, but it is claimed that the action of the British authorities in making drugs available during the period August to December prevented a serious breakdown in medical treatment in the British sector. The urgency of the situation justified a departure from the general policy of treating Berlin as a whole in agreement with the other Allies.

The difficulties in getting German production going are well illustrated by the experience with typhus vaccine. The rickettsiae had to be flown from Frankfurt-on-Main, and arrangements were made to obtain 2,000 eggs from outside Berlin. The rickettsiae arrived, but at the last moment the arrangements to get eggs failed. No animals were available to keep the rickettsiae alive, so the whole process had to be started again.

Summary

A description has been given of the main medical problems which were met with during the first six months of the British occupation of Berlin. Many more arose—ranging from the de-nazification of the German Red Cross and its reconstitution on democratic lines and the encouragement of learned societies to the tracing of doctors wanted as war criminals; but such subjects are perhaps out of place in an article on health matters.

In September and October a somewhat gloomy view was taken as to Berlin's fate during the winter 1945–6. At the time of writing, with the winter more than half over, it would seem that fortune has been kind and the expected epidemics have not occurred.

The following statistics may be of interest in illustrating the impaired vitality of a city after the ravages of war.

	Population of Berlin	Birth Rate per 1,000	Death Rate per 1,000	Infantile Mortality per 1,000 Live Births
Pre-war, 1939 ..	4,306,500	15·1	14·3	59
During 1944 ..	2,863,600	8·6*	16·2	123

* This figure is low, as a large number of pregnant women were evacuated.

Figures are not available from January to June, 1945, but the following are given for the period of British occupation (population, Berlin, British Sector: 527,000):

	Birth Rate per 1,000 p.a.	Death Rate per 1,000 p.a.	Infantile Mortality per 1,000 l. b.
July 12–Aug. 12 ..	Accurate figures not available		
Aug. 12–Sept. 12 ..	15	54	231
Sept. 12–Oct. 12 ..	15	54	231
Oct. 12–Nov. 12 ..	13	54	183
Nov. 12–Dec. 12 ..	12	46	246
Dec. 12–Jan. 12 ..	7·5†	46	246

† This low figure is probably one of the results of the battle for Berlin and the subsequent occupation of the city.

Acknowledgment.—The above description deals with public health matters, but the functions of military government are even more extensive than those of a big city in Great Britain. Any progress would have been impossible without the co-operation of all sections of Military Government and of British Troops Berlin. One cannot enumerate the many sections, but the support of the Senior Military Government officer, Brig. W. R. N. Hinde, D.S.O., and the assistance of the A.D.M.S. British Troops Berlin, Col. E. C. Beddows, O.B.E., *M.C.*, made any success attained possible. We would also like to acknowledge the pleasant experience of working with Allied medical colleagues: Col. Pigareff, U.S.S.R., Col. Freyche, French Military Government, and Lieut.-Col. Scheffer of U.S. Army. As at home, a Health Department does not only depend on medical men. We were fortunate in having Capt. G. H. Chambers, R.A.M.C., and Capt. W. Stapleford, R.A.M.C. (who died while serving in Berlin), as sanitary officers, and Capt. G. Smitham, R.A.M.C., as quartermaster and general staff officer. We would also mention Sgt. V. A. J. Pavitt, R.A., chief clerk, who in addition to his ordinary duties has given great assistance in the revision of this article. Our thanks are also due to Mr. Boucher, O.B.E., and Brig. T. Kennedy, O.B.E., of the Health Branch Control Commission, for their support in the work in Berlin.

NUTRITION OF SCHOOL-CHILDREN IN LEEDS, WINTER, 1943, AND SUMMER, 1944

BY

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In order to obtain some idea of the total nutrition of the children in those schools in which we were investigating the nutritional values of the school meals (Bray *et al.*, 1945) we have carried out a survey on the home dietaries by an adaptation of a method commonly recommended. Children in the age groups 8–11 and 11–14 from five schools were interviewed individually during either the winter of 1943 or the summer of 1944. Two of the schools on new housing estates and a third in a poorish-class neighbourhood were examined over both periods. The fourth, examined during the winter period, also served in part a new housing estate, and it was changed for one in a poorer district in the summer period. The total number of children interviewed was 155, of whom 60 were seen during the winter period.

The children were selected at random, except that equal numbers of boys and girls were taken in each age group from each school and that a proportionate number of children receiving free meals were included in each selection. It is interesting to note that this random sampling was satisfactory, since the proportion of children in the sample taking school milk was the same as the proportion for the whole city. The children were asked individually what they had eaten for breakfast and up to dinner-time that day, and for tea, supper, and at other times since dinner the preceding day. They were then shown previously weighed samples of the foods they had mentioned and were asked to select the amounts of the foods they had eaten. A high degree of precision cannot be attributed to the results of this survey, but, on the basis of work carried out with our students, it seems likely that most of the estimates are accurate to $\pm 10\%$, and the results provide an outline of the diet into which the school meal must fit.

In an endeavour to get some spread of meals three groups include Sunday tea and supper, the rest being weekday meals. Breakfasts, over the two periods, consisted usually of tea but

occasionally cocoa, and bread-and-butter, buns, or tea-cakes, sometimes with jam, dripping, or syrup instead of butter. In the winter period in a few instances a cereal was included, and in a very few bacon or egg; in the summer these foods occurred rather more frequently, and fresh tomatoes and milk were taken in some cases. Most of the children have school milk in the morning, but 7 in the winter and 15 in the summer did not; nowhere did we find anything eaten with the mid-morning milk. Tea consisted usually of bread-and-butter, sometimes jam, tea-cakes, and cake, although chips, meat, sausage, etc., occasionally appeared; and in the summer fresh fruit, mixed salad, cheese, and eggs were also taken by a few. Some had a snack for supper, in which fish and chips frequently appeared, and milk or cocoa. Food on points—e.g., spam, apple rings—appeared only in Sunday teas, and there was a conspicuous absence of cheese in the diets.

Results

In the presentation of results the letter J or S after the initial identifying the school signifies the age groups 8–11 and 11–14 respectively. The standard requirements listed by the United States Research Council are as follows, and we have related our results to them:

Age Group	Calories	Protein	Calcium	Iron
8–11	2,000–2,500	60–70 g.	1·0–1·2 g.	10–12 mg.
11–14	2,500–3,200	70–85 g.	1·2–1·4 g.	12–15 mg.

In the interest of economy of space we have recorded all the collected figures as mean values for each group with their corresponding standard deviations, to indicate the spread of the results within the group. Table I records the adequacy of the

TABLE I.—*Proportion in the Group of Diets Adequate in Calories, Protein, Calcium, and Iron*

School Group		Calories	Protein	Calcium	Iron
B. J	Winter, 1943	0/11	3/11	1/11	9/11
	Summer, 1944	8/11	6/11	7/11	4/11
S. J	Winter, 1943	5/9	7/9	8/9	7/9
	Summer, 1944	6/12	4/12	2/12	11/12
C. J	Winter, 1943	2/13	8/13	0/13	9/13
	Summer, 1944	6/11	7/11	0/11	11/11
G. J	Summer, 1944	2/12	2/12	2/12	4/12
P. J	Winter, 1943	4/12	11/12	0/12	11/12
B. S	Winter, 1943	0/8	1/8	0/8	4/8
	Summer, 1944	3/11	4/11	6/11	4/11
S. S	Winter, 1943	0/7	3/7	2/7	2/7
	Summer, 1944	2/12	1/12	2/12	11/12
C. S	Summer, 1944	6/11	7/11	2/11	11/11
G. S	Summer, 1944	1/12	2/12	0/12	11/12

dietary in terms of calories, protein, calcium, and iron, and the number of children examined in each group. The original intention was to have 12 in each group, but some results were excluded either by mischance or because we had satisfied ourselves that the particular children were unreliable witnesses. No vitamin values are given, since in our opinion calculations of these values from tables are not yet satisfactory. The vitamin C values for the midday meals were recorded in the previous communication, and in most cases represent by far the greater proportion of this component in the dietaries.

The results show that during the winter period of 1943 the dietaries of the 60 children examined were unsatisfactory in calories and protein and generally unsatisfactory in calcium, but (assuming the iron in the diet was readily available) generally satisfactory for iron. The spread of these figures shows that some of the individual dietaries were most unsatisfactory. The school meals and milk did at least account for 32 to 50% of the calories, 34 to 55% of the protein, 44 to 69% of the calcium, and 31 to 56% of the iron in these dietaries.

The nutritional position of the 95 children seen in the summer of 1944 was much better, since the mean energy values for the junior children in three out of the four schools visited approximated to the lower standard level of energy intake for this age group, though the wide spread in these results again underlines the low levels of intake of some of the children in these schools. The fourth school (C.L.), which produced such low values, was one of the two schools examined in a poor part of the city, and itself possessed poor facilities for school meals. It is possible that the lessened intake in this school may be a reflection of a lack of appetite related to undernutrition. The energy values of the dietaries of the senior children were greatly improved over the winter levels, but they are clearly under standard. There was little variation in the levels of

TABLE II.—*Energy Values of Dietaries*

School Group	Winter, 1943		Summer, 1944	
	Mean Value (Cals.)	School Meal + Milk (Cals.)	Mean Value (Cals.)	School Meal + Milk (Cals.)
B. J	1,628 (194)	519	2,149 (394)	727
S. J	1,944 (299)	703	1,962 (416)	569
C. J	1,817 (487)	637	2,068 (373)	898
P. J	1,937 (313)	958	—	—
C.L. J	—	—	1,682 (388)	533
B. S	1,687 (254)	723	2,443 (493)	961
S. S	1,621 (333)	703	1,761 (277)	622
C. S	—	—	2,491 (404)	1,092
C.L. S	—	—	1,933 (324)	673

The figures in parenthesis represent the standard deviation.

TABLE III.—*Mean Intakes of Protein, Calcium, and Iron*

School Group	Winter Period			Summer Period		
	Protein (g.)	Calcium (g.)	Iron (mg.)	Protein (g.)	Calcium (g.)	Iron (mg.)
B. J	54 (22)	0·66 (0·33)	13·0 (4·6)	58 (26)	1·00 (0·64)	9·1 (3·0)
S. J	69 (28)	1·20 (0·72)	13·3 (4·2)	55 (17)	0·76 (0·34)	13·6 (7·1)
C. J	62 (21)	0·80 (0·35)	11·6 (5·7)	68 (38)	0·70 (0·42)	13·9 (7·2)
P. J	71 (39)	0·76 (0·40)	12·7 (6·8)	—	—	—
C.L. J	—	—	—	50 (17)	0·69 (0·36)	10·6 (3·5)
B. S	52 (21)	0·68 (0·33)	13·0 (7·3)	79 (33)	1·37 (0·76)	12·3 (4·0)
S. S	63 (28)	1·05 (0·72)	12·1 (4·2)	49 (19)	0·72 (0·36)	13·3 (8·4)
C. S	—	—	—	76 (36)	0·98 (0·47)	17·9 (8·0)
C.L. S	—	—	—	59 (24)	0·76 (0·42)	14·3 (7·0)

The figures in parenthesis represent the amounts of the various constituents furnished by the school meals and milk.

protein, calcium, and iron within the two periods. The proportions furnished by the school meals and milk to the total dietaries of the children in the summer period were: calories, 29–44%; protein, 31–56%; calcium, 50–64%; iron, 32–63%.

Conclusion

Without making any sweeping claims from these results one can state: (*a*) that in the winter period of 1943 many of the children attending these schools were receiving much less than the recommended amount of food; (*b*) that in the summer period of 1944, with an improved nutritional picture, the standard of nutrition in quite an appreciable proportion was still far from satisfactory; (*c*) that the value of the school meals and milk in these dietaries is well justified by the high proportions of the diets furnished through the schools; and that (*d*) when in the summer period the dietaries had been improved by a marked betterment in the home dietaries, the school feeding was still providing a high percentage of the total food intake.

Indeed, it is difficult to visualize what the nutrition of many of those children would have been like had it not been for the communal feeding within the schools.

We are indebted to the Director of Education in Leeds and to Dr. Willcock, school medical officer; also to Miss Washington for the facilities granted for these investigations. We should also like to record the marked improvement in the school meals which occurred despite a greatly expanding service and under conditions of difficulty.

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The Minister of Health, in conjunction with the Secretary of State for Scotland and the Secretary of State for the Home Department, will shortly make a new Scarce Substances Order which will come into operation on April 1, 1946. This Order rescinds all earlier Scarce Substances Orders except S.R. & O. No. 795 of 1944, generally known as the Ipecacuanha Order, which is amended by substituting as the authorized alternative for tincture of ipecacuanha a mixture of one volume of tincture of squill and one volume of water.

UNUSUAL GUNSHOT WOUND OF THE INTERNAL CAROTID ARTERY

BY

S. L. SCHWARZWALD, L.R.C.P.&S.Ed., L.R.F.P.S.

The unusual development of this case, which remained unsuspected from the time of injury to the post-mortem examination, may warrant recording.

Clinical History

Pte. J. W., aged 33, was injured when handling a small mine which exploded. He was admitted immediately to a near-by hospital. There were abrasions and shallow lacerations, some 3/4 by 3 cm. in extent, on the left temple, 2 cm. from the eye; a small punctured wound just below the angle of the jaw on the left; and several minor abrasions on the limbs. He was shocked and only semi-conscious. From the neck wound came a scanty but steady trickle of blood. An exploration was attempted under general anaesthesia, but it had to be abandoned because the patient's respiration became very "difficult" and the threat of asphyxia grew. Intubation was attempted but not accomplished. The presence of glottis oedema was suspected. Subsequently the onset of "cerebral irritation" was noted; his pulse rate rose from 70 on admission to 120 four hours after the operation. A cranio-cerebral injury was suspected, and accordingly he was transferred to Hurstwood Park Hospital. The findings here were as follows.

The patient was stuporous to a marked degree; he opened his eyes and moved on application of pain stimuli and grunted when so roused. Loud speech had a similar effect, but no comprehension was apparent. His general physical condition was moderately good; his pulse rate 90; temperature 99.2°; the respiration stertorous, rather deep, and at a rate of 19 a minute. The blood pressure stood at 160/110, and his cardiovascular system showed no abnormality beyond a bounding pulse and rather loud first sounds. On the left temple there was the wound described above, and a sutured, incised wound with a rubber drain was seen at the level of the upper edge of the thyroid cartilage, extending, parallel to the body of the mandible, nearly as far as the angle of the latter. The neck itself was swollen and distended; the mandibular margin and clavicle were just palpable on the left, and a little more easily on the right. No details such as muscles or trachea could be made out, and the whole swollen neck pulsated with the heart-beat; it was hard to the touch. The sternal notch was obliterated.

The nervous system clearly showed signs of left-sided cerebral damage. The retina of his left eye was detached and located at −20 D, and the eye itself was slightly proptosed. The pupils were equal, central, and circular, the right one reacting sluggishly to light and the left one not at all. There was a diminished reaction to pinprick in the second and third divisions of the right trigeminal nerve, and a right facial palsy of upper motor neurone type. The auditory meatuses were of normal appearance, as were the drums; auditory acuity could not be assessed, but he could perceive sounds on both sides. Apart from weakness of his left sternomastoid and trapezius, which probably had local causes, no further cranial nerve abnormality was found. Both right limbs had an increased muscle tone and were scarcely moved at all even on application of strong pain stimuli; this state of affairs was more pronounced in the arm than in the leg. The reflexes on that side were brisker than those of the other side; knee clonus and ankle clonus were present, and the plantar response was extensor. Curiously enough, sensitivity to pinprick was not as acute on the left as on the right.

The patient could not utter any recognizable words, but only stertorous grunts on stimulation: apart from being aphasic he must have had aphonia as well, due to the local condition of his larynx.

Radiography did not reveal any bony damage, but at the level between C.3 and C.4 vertebrae, in the neighbourhood of the carotid bifurcation on the left, there was a foreign-body shadow of rugged outline, measuring less than a centimetre across. A lumbar puncture yielded blood-stained fluid under a pressure of barely 100 mm., the fluid soon clotting.

To begin with, the patient's condition did not change much, or only very slowly, for the worse. Eight hours after admission, however, the respiration became quite distressed and loudly stertorous, and his colour was cyanotic; the pulse rate had risen to 140 and the quality was even more bounding than before. Elevation of the jaw did not alter the respiratory distress. On inspection of the larynx it was seen that a good deal of oedema was present and also a haematoma in either ary-epiglottic fold; blood and blood-stained mucus had been vomited shortly before.

Endotracheal intubation was performed under pentothal and the distressing signs vanished quickly, the colour improved, and the pulse rate settled presently to 80. The stupor, however, and all the other neurological signs were, if anything, graver and did not improve: on the contrary, the patient slid back into deepening coma. Within a few hours the pupils were fixed, complete hemiplegia was established, and very little motor response resulted from stimulation of the patient's legs; both plantar responses were now extensor. The pulse rate rose once more, but without the bounding force. Death ensued some 20 hours after admission to this hospital and some 40 hours after his initial injury. The face, and the face alone, showed extreme cyanosis before death.

Findings at Necropsy

Upon dissection of the neck a small amount of blood was found in the opening of the wound and between skin and platysma; the rubber drain, lying in the superficial fascia, led downwards and forwards into an artificial cul-de-sac. The investing layer of the deep fascia showed a very small opening directly under the entry wound, and a track ran from there backwards and upwards, through blood-clot and disorganized muscle; it contained a little semiliquid blood. The whole space between the investing layer, from its attachments above and below, to the prevertebral layer of fascia was filled and distended with clotted blood, which visibly exerted enormous pressure upon all structures within that space. This clotted mass of blood reached upwards to the base of the skull at the pharyngeal tubercle and downwards into the upper mediastinum. It encroached particularly upon the larynx, appearing under the mucous membrane, upon the pharynx, the glottis, and the base of the tongue. The most striking feature was the extent to which the carotid sheaths were compressed, and especially the jugular veins. The lumina of the latter were compressed—considerably so on the right and to almost complete obliteration on the left.

The track ended between the external and internal carotid arteries on the left. At its bottom, exactly in the bifurcation, lay a metal foreign body (mine splinter), measuring 1 by 1/2 by 1/2 cm. The anterior aspect of the internal carotid showed an oval regular opening occupying about one-third of the vessel's circumference. To the upper edge, inside the vessel, there was firmly attached a small amount of clot. It was insufficient to obstruct the blood stream by itself, and inside and about the vessel near the opening fluid blood was actually present.

The brain and its membranes showed a considerable degree of vascular engorgement—again more so on the left than on the right. Macroscopicaliy, the cortex of the left hemisphere showed early softening along the upper edge of the convexity, affecting mostly the Rolandic area. Microscopically, there was practically universal vascular congestion, most noticeable in the capillaries. There was considerable extravasation of blood along the vessels and extensive myelin changes in the subcortical layers. Many cells of the cortex showed pyknosis and some nuclear fragmentation.

Comment on the Findings.—The necropsy report suggests strongly that obstruction of venous return from the head, due to bleeding from the internal carotid artery into the fascial space, was the direct cause of the patient's death. This diagnosis had not been made during life. The smallness of the opening in the enveloping layer of deep fascia, caused by penetration of a high-velocity missile through an elastic membrane, no doubt accounts for this unusual mode of development of a main-arterial injury of the neck; the presence of a rubber drain lying across the unsuspected opening of the real track may conceivably have made things more difficult by helping to occlude the opening in the fascia.

Discussion

Carotid injuries and their serious sequelae have been observed widely during both recent wars, and definite lines of treatment were evolved. To summarize the range of possible events, injury to the main arteries of the neck may be followed by: (1) Fatal haemorrhage. (2) Extravasation of blood and rapid formation of a thrombus, with (*a*) maintained patency of the vessel (embolism may occur at any stage after injury, and the development of a false aneurysm is a common late consequence); (*b*) quickly or gradually developing obstruction of the injured vessel. Both the latter possibilities expose the cerebral hemisphere concerned to grave danger of partial or complete anaemia, and the severity depends upon the extent to which collateral circulation can be established—a factor depending in turn on anatomical conditions, such as available channels, and also upon time. The danger of embolism falls under a different heading because it concerns the cerebral branches of the internal carotid, some of which, at least functionally, may be considered as end-arteries. The picture, then, resulting from carotid artery injury may range from death to but slight and fleeting hemiparetic signs and symptoms.

As to treatment, repair would seem the ideal; but in most cases the patient does not reach a surgical establishment soon enough,

nor is the technical problem one which can be overcome successfully in a relevant proportion of cases. Thorough exploration and assessment of the injury, in most cases ligation or ligation and division of the vessel, have been largely accepted as the method of choice.

The present case does not comply with the scheme outlined; in retrospect the steady development, step by step as it were, and the persistence of cyanosis of the head after intubation, were the only guides in differentiating the case from other forms of vascular catastrophe in the neck, and this diagnosis could not easily be distinguished in that instance from direct cerebral traumatism, particularly in the absence of a detailed history of the incident.

My thanks are due to Mr. Harvey Jackson for permission to publish this case, and for his advice and help.

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CONGENITAL MALARIA

BY

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AND

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Opinions are still divided as to the incidence of this disease. Manson-Bahr (1940) states that "congenital malaria is very exceptional, and probably only occurs when accidental tears of the placenta allow passage of parasites from maternal to foetal circulation." In Ceylon, Wickramasuriya, who has had a wide experience of malaria and ankylostomiasis in pregnancy, is of the opinion that pyrexia in children whose mothers have had malaria may be due to transmission of the parasites during pregnancy. It is possible that they are transmitted through the placenta as the result of pathological changes due to the infection. We should go further and suggest that during the intense shivering associated with the ague fits it would be possible for the placenta to be damaged.

One of us (A. E.) has been working for nearly ten years in Turkey and has travelled widely in rural areas, examining children. During this time there were many opportunities for observing the protean nature of the manifestations of malaria from birth to adolescence. The recognition of congenital malaria as a clinical entity needs to be emphasized. The following case, seen by both of us, is of unusual interest.

Case History

Case 1.—On July 30, 1944, Sefak Nahi, 20 days old, was sent to the Numune (Model) Hospital, Ankara, because of a pyrexia of 40° C. (104° F.) that had persisted during the previous three days. The infant was well nourished, having been breast-fed since birth. On examination the spleen was found to extend three fingerbreadths below the costal margin. The W.R. was negative, but blood films revealed gametes and ring forms of benign tertian parasites in both mother and infant. The latter was immediately given an intramuscular injection of 0.03 g. of mepacrine (atebrin). The injections were continued daily for six days. The temperature, which on admission was 40° C., fell to 36.5° C. after two days of treatment and had remained below 37° C. since then. By the third day the spleen had diminished in size to two fingerbreadths below the costal margin. The infant was discharged on the tenth day, and the spleen was now only one fingerbreadth. Breast-feeding was maintained throughout.

The mother's history is most interesting. She was 30 years old and had for many years suffered from malaria. She had had five abortions, always in the second or third month. During the present pregnancy she had an attack of malaria at the fourth month. She took mepacrine (0.1 g.) thrice daily for three days, but did not continue with this for fear of inducing an abortion. After an interval of three days she took pamaquin (plasmoquine) (0.02 g.) daily for three days. The remainder of her pregnancy was punctuated with attacks of "shivering" and high temperature, for which she received no treatment. The delivery was normal and the baby weighed 3,200 g. (7 lb. 1 oz.).

Further Cases

Two cases of congenital malaria have already been reported (Eckstein, 1942). Four other cases will be briefly described.

Case 2.—Baby admitted to hospital when 3 weeks old because of loss of weight. Birth weight 3,950 g. (8 lb. 11 oz.), but had lost 200 g. although breast-fed. Temperature varied between 37.2° and 38.9° C. The spleen had been palpable since the eighth day from birth. Blood film—malignant tertian gametes. W.R. negative. Mepacrine treatment.

Case 3.—Baby 2 months old; had had intermittent fever since it was a fortnight old. It was admitted because of anaemia. Temperature varied between 37.3° and 37.8° C. Spleen enlarged to two fingerbreadths below costal margin. Blood film—benign tertian gametes. W.R. and Widal test negative. Mepacrine treatment for six days resulted in a normal temperature and reduction in size of spleen. During the last month of pregnancy the mother had had an attack of fever, and the day after delivery had a rigor.

Case 4.—This baby when a fortnight old was admitted to hospital as the mother developed malaria during her confinement and could not breast-feed. On admission the baby was very ill: cyanosed; temperature 38° to 39° C.; spleen 2½ fingerbreadths below costal margin. W.R. negative; blood film—malignant tertian ring forms. Baby died.

Case 5.—Baby, one of twins, aged 22 days; brought to hospital suffering from diarrhoea. Temperature, 38.1° C. Splenomegaly—3 fingerbreadths. Blood—benign tertian ring forms. Mepacrine treatment; two days later diarrhoea ceased. The other twin was examined. Its spleen was enlarged; there were no symptoms of malaria except that the blood film showed benign tertian ring forms. This was a case of "occult congenital malaria." The mother had had an attack of malaria in the seventh month of her pregnancy and was treated only with mepacrine for five days. In the last month and immediately after delivery she had pyrexia. Blood—benign tertian ring forms and gametes. W.R. of mother and babies negative.

Commentary

The cases described were brought to hospital in an area where malaria is not endemic. We are of the opinion that where the disease is endemic congenital malaria is not uncommon. The majority of malaria-infected persons in rural areas where malaria is endemic are never seen by doctors. This applies especially to infants who die in their early weeks and never reach hospital. The true nature of their disease is never suspected. The mother when questioned will say that her child died from meningitis, convulsions, coma, diarrhoea, indigestion, anaemia, etc. The clinical manifestations of malaria are of such diversity that it has been described as the great mimic of other diseases. Hughes and Bomford (1944) have re-emphasized this. Such was their experience when dealing with British troops in West Africa. Congenital malaria may be symptomless, as in the second of the twins (Case 5). Occult malaria is one of the varieties of malaria in childhood that are not uncommon (Eckstein, 1943). The existence of such a condition has been known for some time in Turkey, for there is a special descriptive term for it in Turkish—"gizli sitma" (hidden or secret malaria).

We suggest that the high infant mortality could be lowered if adequate suppressive and prophylactic treatment were practised during pregnancy. If a pregnant woman develops malaria she should be given the recognized course of mepacrine and pamaquin (not quinine). During the succeeding months of her pregnancy prophylactic treatment should consist of mepacrine (0.1 g.) thrice a day for two days—for example, Wednesdays and Saturdays—in every first and third week.

With regard to the baby of such a mother we would emphasize that, in the event of pyrexia or other clinical features developing, malaria should be immediately suspected and appropriate measures taken. In the absence of pyrexia and in a baby that appears quite normal, one must always remember the possibility of "occult malaria" and examine for splenomegaly. We are not in favour of prophylactic treatment in infants, but only suppressive treatment once the diagnosis of malaria has been made.

The problem of malaria is global. Those authorities who are responsible for the rehabilitation of Europe will find the incidence of this disease assuming astronomical figures. Malaria is one of the greatest scourges in the Tropics and sub-Tropics. The loss of infant life is appalling. It is one of the commonest causes of abortion. Russia, the Balkans, Poland, Italy, Spain, and Holland are countries where the disease may become pandemic. With the shifting of large population groups, districts and countries that have happily escaped hitherto may find themselves faced with this dread disease. The Ministry of Health in England is fully alive to the danger and has issued a circular (January, 1944) warning general practitioners. Without wishing to appear pontifical we should remind those who are responsible for blood transfusion of whole blood, not plasma, of the risk of malaria transmission from donors who have served abroad.

Now that the hounds of war have been leashed there still remains the battle against disease. Combined operations have proved their worth in war. And so in peace it will be the active and energetic co-operation between hygienist, obstetrician, and paediatrician that will reduce the heavy infant casualties from malaria.

Summary

Congenital malaria is not infrequent where malaria is endemic.

Five cases are recorded (including one of twins). Two other cases have already been published.

Prophylactic treatment during pregnancy, and suppressive treatment (0.03 g. of mepacrine daily for six days intramuscularly) of the infected infant, are described.

Co-operation between hygienists, obstetricians, and paediatricians is essential for the reduction of infant mortality due to malaria.

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HYPERTENSION IN RUPTURED KIDNEY

BY

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Experimental hypertension was first reported by Goldblatt *et al.* (1934) when they showed that by the application of a specially designed adjustable silver clamp which constricted both renal arteries the blood pressure was elevated with only little depression of the secretory function of the kidney. Hypertension was produced by Page (1939) in dogs, cats, and rabbits by enclosing a kidney in "cellophane." The "cellophane" gave rise to a fibrous-tissue reaction which enclosed and compressed the renal parenchyma and by interfering with the blood supply caused hypertension. It is now known that this rise in blood pressure is the result of an enzyme—rennin—produced by the kidney when the blood-flow through that organ is impeded. The rennin acts on a serum globulin—hypertensinogen—to produce a pressor substance, hypertensin. A series of 198 cases of nephrectomy for hypertension in chronic unilateral renal disease was reported by Braasch (1942). In 65 of these the blood pressure at the end of a year was still normal.

During the last four years I have seen five cases of recent renal injury, and in four of these there was a raised blood pressure lasting some days. During this period seven other cases of ruptured kidney were admitted to the Radcliffe Infirmary. The blood pressure was not taken in five cases. The other two cases each had one recording of the blood pressure; in one of them it was raised.

Records of 4 Cases

Case 1.—November, 1941. A boy aged 15 had an injury at rugger. Seen four hours later, there was gross haematuria; pulse 100, blood pressure 160. Some rigidity was present on the left side and a haematoma could be felt. Expectant treatment was given, and the blood pressure fell to normal in three days. An intravenous pyelogram taken a month later showed that both kidneys were normal.

Case 2.—On Dec. 31, 1944, a man aged 25 slipped and fell flat on his abdomen. There was pain in the right loin, with haematuria. On Jan. 2, 1945, he was admitted to Radcliffe Infirmary with gross haematuria; blood pressure, 170/110. There were rigidity of the left side and increased dullness in the left flank. Jan. 3: Urine clear; blood pressure, 150/95. Jan. 8: Blood reappeared in urine, and persisted for two days. Jan. 23: Intravenous pyelogram normal; blood pressure, 120/80.

Case 3.—A boy aged 4 was struck in the abdomen by a tractor-driven wagon on March 4, 1945. Haematuria occurred the same day. He was admitted to Radcliffe Infirmary on March 5 with haematuria, and rigidity and tenderness in the right renal region. Blood pressure: Morning, 170/110; evening, 150/70. Haematuria occurred during the day, but an evening specimen of urine was free from blood. March 6: Blood pressure, 130/70; no haematuria; no rigidity. March 12: Blood pressure, 110/80.

Case 4.—On Nov. 17, 1945, a young man aged 19 was injured at rugger. He was admitted three hours later with pain in the left loin and haematuria. There was rigidity in the left flank; no haematoma was felt. Haematuria persisted for 6 days. Nov. 18: Blood pressure, 140/90; this pressure persisted for a week. Nov. 25: Blood pressure, 130/85. Nov. 27: Blood pressure, 120/80. An intravenous pyelogram taken two months later showed normal kidneys.

Comment

A raised blood pressure occurs in some cases of ruptured kidney, and returns to normal after some days. This pressor effect is not dependent on the formation of a perirenal haematoma. The only clinical application is that if the blood pressure is raised it rules out associated injuries such as ruptured spleen.

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Medical Memoranda

Penicillin Treatment of Malignant Diphtheria

While diphtheria is listed as one of the conditions for which penicillin may be given, we have so far seen only one report of its use (Symons, 1945). The following two cases may therefore be of interest. Both were caused by the intermediate type of diphtheria bacillus, and in each case the organism was sensitive to penicillin, as proved by laboratory tests.

CASE I

A boy aged 15 was admitted to hospital on April 18, 1945. He had typical bull-neck diphtheria, and his parents had at first thought he was suffering from mumps. Membrane covered tonsils and uvula, and there was marked nasal discharge; haemolytic streptococci grew in both nose and throat cultures, as did diphtheria bacilli.

On admission he was given 40,000 units of diphtheria antitoxin intravenously, and 40,000 units intramuscularly. Next day a further 40,000 units was given intravenously. On admission sulphanilamide, 1 g. four-hourly, was given, being continued for four days. On April 20 he received 50 mg. of vitamin B, and 500 mg. of vitamin C intramuscularly, and these injections were repeated daily until May 4, when vitamin therapy was continued by mouth. On April 20 petechiae were noticed around the base of the neck and on the upper chest, and it was decided to try penicillin. He was given 100,000 units daily by three-hourly intramuscular injections for five days. A spray containing 500 units per ml. was also used locally on the throat, hourly while awake.

Two days after starting penicillin therapy the throat was clear of membrane apart from one small speck on the uvula, and we were struck by the rapidity with which this very bad throat had cleared. His subsequent progress was uneventful except for some complaint of blurred vision during one day in his fourth week. He was allowed up on June 20, and showed no sign of any other complication.

CASE II

A youth aged 17 was admitted on May 12, 1945. On the evening of May 8—VE Day—he had been out all night celebrating, and on the evening of May 9 was on duty as a page-boy, so that his illness was not more than three days old on admission. He had massive bull-neck adenitis, especially on the right side, where the swelling extended over the parotid region. There was a mass of membrane smothering the right tonsil and extending forward to within half an inch (1.25 cm.) of the incisor teeth. The uvula was coated but was difficult to see, and the left tonsil was embedded in oedema. Swabs showed both haemolytic streptococci and diphtheria bacilli.

He was given 40,000 units of antitoxin intramuscularly and 60,000 units intravenously. Penicillin was started on the day of admission —100,000 units daily for six days. Penicillin spray, as in the first case, and vitamin injections were also given. The patient was very restless and required morphine for the first few days to give him rest. On May 14 his condition was unchanged: the contour of the throat was very difficult to make out, as a large lump of thick membrane was hanging down from the hard palate. This separated later that day, and was so extensive that we felt that mucous mem-

brane had been sloughed, but section proved this was not the case. On May 20 immobility of the palate was noticed. On May 22 he had attacks of vomiting, the pulse rate was very slow, and there were occasional extrasystoles. These attacks continued until May 24, when the pulse rate was about 30 and the blood pressure 85/60. The patient died on May 24—a typical case of early cardiac failure.

DISCUSSION

Had we had only the first case under treatment we should have been inclined to think that penicillin had had a dramatic effect. The appearance of petechiae is usually regarded as an ominous sign. There is a high mortality in such cases, and those that recover usually have a hazardous passage: in this boy the striking features were the rapidity with which the membrane cleared and the almost complete absence of complications.

On the other hand, we have occasionally seen patients quite as ill, including one with haemorrhages from nose, throat, and rectum, who have recovered with very few complications on antitoxin and vitamin therapy. Also against too ready an acceptance of the effect of penicillin is the complete failure in our second case. It is possible that increased dosage might have helped. Symons (1945) gave almost double the dose in his successful case. He was convinced on clinical grounds, by the "most unusual, unexpected, and *rapid* disappearance of the extent of gelatinous membrane," that penicillin saved his case of bull-neck diphtheria. His description corresponds fairly well with our first case.

We are indebted to Dr. J. S. B. Penfold, who carried out the bacteriology, and to the medical officer of health for Southend-on-Sea for permission to publish.

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Sigmoidoscopy: Perforation of the Rectum

In view of the many cases which to-day require sigmoidoscopic examination, the following notes may perhaps be useful, since they emphasize one risk of this procedure which is so well known as to be almost ignored.

CASE RECORD

An Italian prisoner of war aged 28 was admitted to a British military hospital with a history of having had amoebic dysentery in 1941. Since then he suffered from bowel irregularity, which had recently become more troublesome. A routine sigmoidoscopy was done at 9 a.m. by the Italian medical officer in charge of the case. This medical officer, who is experienced and competent in this form of investigation, noted that no blood or mucus was visible, but that at 8 in. (20 cm.) there were "two small superficial ulcers." It was recorded that at 6 p.m. the patient complained of some abdominal pain and his temperature was 99.8° F.

The surgeon specialist was called to see the patient the next day at 1 a.m., and found him very ill—pulse 130, respirations 60, and temperature 100.6° F.—and in considerable distress. The abdomen was much distended, tympanitic in all parts, generally tender and rigid, and silent to auscultation. Laparotomy was done at 11 a.m. under general anaesthesia. On incising the peritoneum a large volume of gas whistled out and the distended parietes collapsed like a pricked balloon. The peritoneum of the small gut and parietes was dark red and injected. The pelvic contents were bathed in thin grey foul-smelling pus and the depths were sealed off by plastic adhesions of bowel and omentum. About 2 in. (5 cm.) above the recto-vesical fold the anterior wall of the rectum showed a narrow darkly stained area of peritoneum extending horizontally half-way around the circumference of the bowel. Patches of similar appearance were seen in the caecum and lower sigmoid; in these two places the wall of the bowel did not appear to be thinned, but that in the rectum was actually perforated by a small tear near its centre; through this gas and liquid faecal contents bubbled on any manipulation. This tear was closed by three Lembert sutures, and these were buried by a flap of oversewn omentum. A colostomy would have been difficult without freeing the bowel and exposing extraperitoneal tissues, so a caecostomy was carried out; a large drainage-tube was put into the pelvis, and after the patient had returned to bed a tube was passed through the sphincter and secured by a stitch.

The patient's convalescence was stormy and precarious. Collapse of the left lung became manifest after 24 hours. Immediately after operation an intravenous glucose-saline drip and stomach suction were instituted. He was given 18 ml. of multivalent anti-gas-gangrene serum at once. Sulphathiazole therapy was started after 24 hours, 36 g. in all being given. The abdominal tube discharged foul-smelling pus profusely, but the wound itself united well. Cysts of *Entamoeba histolytica* were found in the caecostomy fluid on the fourth day. The abdominal drainage-tube was removed on the fifth day, but discharge continued through the sinus for 21 days. The caecostomy tube came away on the sixth day and the stoma healed without further discharge. The bowels moved normally on the eleventh day, when the patient became, and remained, afebrile. The routine treatment of the amoebic infestation was begun on the sixth day after operation, and from the eleventh to the fourteenth day 10 g. of sulphaguanidine was given daily by mouth.

It was considered that in all probability air inflation during the sigmoidoscopy, and not direct injury with the instrument, caused the above lesion.

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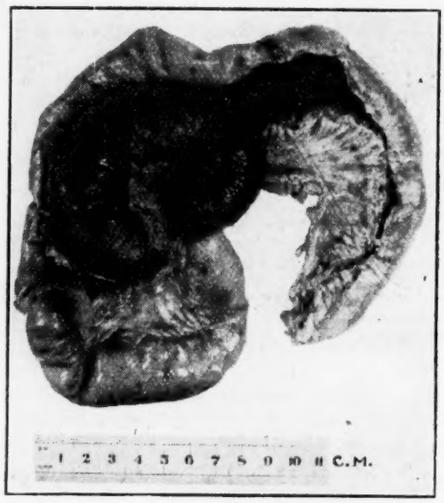
Volvulus of Small Intestine

In view of the recent communications on cases of intussusception and volvulus, I feel that the following case is worthy of note.

CASE RECORD

Mrs. A., a Jewess aged 39, was admitted here on Nov. 26, 1945, at 4.15 p.m., having collapsed in a shop about half an hour previously. She had already been seen by a general practitioner, who had administered 1/3 gr. (22 mg.) of omnopon to allay her severe abdominal pain, which had started suddenly and gradually increased for about half an hour previous to her collapse. On questioning, the patient stated that she had a constant sharp pain in the upper and middle abdomen which passed through to the back at the same level and was unrelieved by the injection. She had had no other similar attacks. The bowels were constipated and micturition was normal; she was nauseated but had no vomiting. In 1938 she had undergone Caesarean section, and during the past month had been treated with antuitrin-S for menorrhagia, but her last injection in this course had been nearly one week before admission.



On examination areas of tenderness to palpation were elicited in the epigastrium, in both iliac fossae, and in the left costo-vertebral area. There was no rigidity, guarding, or palpable masses. Heart and lungs, N.A.D.; T. 101.6° F.; P. 80; R. 24; B.P. 175/80; urine normal. A pelvic examination was abandoned because of severe shivering. Four hours later her pulse rate had increased to 90 and her B.P. was 160/80. There had been no more shivering, but the patient had vomited twice. The abdomen was tender below the xiphisternum and in both iliac fossae. A bulky uterus was the only abnormality noted on vaginal examination.

Laparotomy was decided upon, and the abdomen was opened in the right paramedian line under spinal analgesia after an intravenous drip had been started. By this time the B.P. was 140/70. Some blood-stained fluid was found in the peritoneal cavity and several enlarged tense black coils of twisted small gut were delivered. A volvulus of the small intestine was diagnosed and the gut was untwisted through almost a complete circle. The remaining part of the twist could not be undone, and the cause was found to be an irreducible intussusception involving the distal ileum to within 6 in. (15 cm.) of the ileo-caecal valve. Nearly two feet (60 cm.) of small gut was resected and enough terminal ileum remained to perform a side-to-side anastomosis. The peritoneum was closed without drainage and the patient returned to the ward. Intravenous therapy and gastric aspiration were continued for four days. The patient made an uneventful recovery, and was discharged 18 days later to complete her convalescence at home.

On examination of the specimen after operation no cause for the intussusception was found, although a Meckel's diverticulum had been confidently sought. (See accompanying photograph.)

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The Minister of Labour has made regulations entitled the Patent Fuel Manufacture (Health and Welfare) Special Regulations, 1946, which provide for the observance, in patent fuel works, of various specified requirements with regard to ventilation, the suppression of dust, washing facilities and clothing accommodation, medical supervision and examination, the protection of the eyes and skin of workpeople, and messrooms.

Reviews

SYMPTOMS OF VISCERAL DISEASE

Symptoms of Visceral Disease. A Study of the Vegetative Nervous System in its Relationship to Clinical Medicine. Sixth edition. By Francis Marion Pottenger, M.D., F.A.C.P. (Pp. 442; 87 illustrations and 10 colour plates. 25s.) London: Henry Kimpton.

This book was first published in 1919, and seems therefore to have established itself firmly in medical literature. The author begins by describing the anatomy and physiology of the vegetative nervous system, the effect of the ionic content of the cells on nervous responses, and the reaction to various drugs. The reflexes arising in health and disease are described, and this leads to a general discussion of the phenomena of disease. The innervation of the important viscera and the reflexes and symptoms arising from them are finally studied in detail. The general thesis of the book is the idea that most symptoms can be explained as disturbances in normal reflexes. When Mackenzie preached this idea a generation ago it seemed so stimulating that it is puzzling that we are so little interested in it to-day. Dr. Pottenger's book is avowedly a study of man as a segmented organism, and the whole trend of biochemistry and psychology in these last years has been away from neural segments to cells and ferments in the one direction, or to the total organism in the other. Moreover, we have been more interested in the aetiology and prevention of disease than in the mechanism of symptoms. It seems probable, however, that the development of psychosomatic medicine will give a new impetus to the study of symptoms, and workers in this field will find Dr. Pottenger's book a valuable source of information.

VITAMINS IN MEDICINE

The Vitamins in Medicine. By Franklin Bicknell, D.M., M.R.C.P., and Frederick Prescott, M.Sc., Ph.D., M.R.C.S. Second edition, revised and enlarged. (Pp. 916; illustrated. 50s.) London: William Heinemann Medical Books, Ltd. 1946.

It is good evidence of the value of a book that a second edition is required within four years of the publication of the first. The authors of *The Vitamins in Medicine* have found much fresh material to add to their book, particularly in connexion with the vitamin B complex. There are claims in the literature for the existence of 22 members of the B complex, eleven having been identified chemically. The existence of the rest has been recognized from animal feeding experiments, though some of these indicate the probable identity of certain vitamins which have been given different names by different workers—e.g., B_5 is probably the same substance as B_6, pyridoxine. The subject of riboflavin alone occupies 69 pages (31 in the first edition) and nicotinic acid 68 pages (41 in the first edition). Other chapters also have been enlarged somewhat. A chapter has been added on essential unsaturated fatty acids and other minor fat-soluble vitamins. No evidence of a shortage of unsaturated fatty acids in human beings has been found yet. Only two other "minor" fat-soluble vitamins are at present thought to have been found—a growth factor in butter, active on calves and rats, and an antistiffness factor in greens and raw cream, active on guinea-pigs. The tables of vitamin content of foods have been revised and the numbers of references to original papers and of illustrations have been brought up to nearly 4,500 and 208 respectively. Both the authors and publishers may be congratulated on producing a very fine work.

PATHOLOGY OF TUMOURS

Kettle's Pathology of Tumours. By W. G. Barnard, F.R.C.P., and A. H. T. Robb-Smith, M.D. (Pp. 318; illustrated. 21s.). London: H. K. Lewis and Co.

In the first edition of this book, published in 1916, E. H. Kettle set out to "provide a manual for students which should contain the generally accepted teaching on the pathology of tumours without the mass of detail proper in a more ambitious work of reference." His efforts achieved this object and a great deal more. His book, stamped with the impress of his personality and illustrated by his own hand, crystallized years of wide and accurate observation in a relatively small and beautifully written monograph.

The authors of the new edition express the hope that its publication may keep Kettle's name fresh in the minds of students of pathology. They have attempted—and have succeeded—to preserve as much as possible the character and happy phraseology of the earlier editions," and from recent studies in experimental and histological researches have selected those most likely to form permanent additions to knowledge. It is indeed gratifying to find how well the original character of Kettle's work has been preserved, and to be able to recommend this edition to students as a sound, reliable, and clearly written introduction to tumour pathology.

THE CRIMINAL PSYCHOPATH

Rebel Without a Cause. By Robert M. Lindner, Ph.D. Introduction by Sheldon Glueck, Ph.D., and Eleanor T. Glueck, Ed.D. (Pp. 259. 21s.) London: Research Books Ltd. 1945.

This is one of a series of research studies dealing with psychiatric problems. Its subject is a young man serving a long prison sentence who would be diagnosed by most authorities as a criminal psychopath, a group well recognized as extremely resistant to treatment and as to whose psychopathology there is no agreement. This patient is a recidivist who has continued to commit many crimes from an early age, ranging from petty larceny to attempted murder. No punishment had any effect, and until the successful treatment described in this book he was obviously heading for a continuous career of crime. He also suffered from a severe blinking tic of his eyes supposedly dating from an attack of measles in very early childhood. By means of a concealed microphone the author has secured a verbatim record of 46 hours of analysis. This was not entirely orthodox psycho-analysis, as from time to time the patient was put into deep hypnosis, during which deep-seated memories were elicited which were afterwards rediscovered while the patient was conscious. In this way they could be fully understood by him and integrated into his conscious personality. The result is of great interest, since it would seem that memories dating from the 7th or 8th month of life were restored, the operative event being observation of parental coitus, with consequent development of a full-fledged Oedipus complex and fear of castration, culminating in the attempted murder of a father surrogate. As a result of treatment not only was the ocular tic cured but the whole attitude to life of the patient was changed. It may be noted that the use of hypno-analysis reduced the duration of treatment to 46 hours, which is much less than would have been required for an orthodox psycho-analysis.

The author points out the uselessness of the ordinary penal treatment of these psychopaths—a conclusion with which we should all agree. The subject of this account is one of six treated in the same way, and it would appear that the procedure holds out definite promise that such intractable cases might be successfully dealt with by these means, which, though still lengthy and difficult, are not outside the bounds of possibility. All those concerned in psychiatric and medico-legal problems should read Dr. Lindner's book with care, and they will be rewarded by a fascinating clinical study.

Notes on Books

The 78th annual volume of *Whitaker's Almanack*, for 1946, has now been published from 13, Bedford Square, London, W.C.1. It includes a chronicle of the war from the invasion of Poland to the unconditional surrender of Japan; also the results of the General Election of 1945, with the new Ministry and newly elected House of Commons. These and other additions of current interest swell the book beyond its former limits. It is published in three editions: the complete edition, cloth bound, with 1,088 pages, at 12s. 6d.; the abridged edition, in paper covers, with 704 pages, at 7s. 6d.; and the library edition, bound in leather, with 13 coloured maps, at 25s.

The text of the second edition of *Modern Anaesthetic Practice* (Eyre and Spottiswoode Ltd.; 12s. 6d.) has been completely revised. In spite of variations in style and detail inevitably attendant on multiple authorship, the advice is everywhere sound and can be safely followed by the occasional anaesthetist. As is right in a book not intended for specialists, practical details predominate, and no attempt is made to lead the reader into academic byways.

A booklet of *Hospital Prayers* was compiled in response to an instruction of the General Assembly of the Church of Scotland in 1944. It is printed by William Blackwood and Sons, Ltd., of Edinburgh, for the Committee on Public Worship and Aids to Devotion. The price is 1s. 6d., and Part I (which may be had separately, being chiefly for use by patients) costs 9d.

Nova et Vetera

CESALPINO AND THE CIRCULATION

The Circulation of the Blood and Andrea Cesalpino of Arezzo. By Dr. John P. Arcieri. (Pp. 193; illustrated. No price given.) New York: S. F. Vanni, 30, West 12th Street. 1945.

Dr. Arcieri is an Italian who has long practised in America. He is well known as a passionate claimant for the importance of Italian civilization. Few can believe that the unique part of Italy in the revival of learning needs advocacy, but, since nationalism is bedevilling the world, the reviewer must treat such feelings with all tolerance. Dr. Arcieri revives for the fiftieth time the claim for Cesalpino (1519–1603) as discoverer of the circulation. He holds that an underhand designing knave, William Harvey, cunningly and basely filched his due honour.

The facts are these. Scattered in the works of Cesalpino, and notably in his *Peripateticae Quaestiones* (Venice, 1571 and 1593), are passages which, when placed together, can reasonably be regarded as an unclear expression of a belief in the circulation. The lesser circulation had, as is well known, already been enunciated by Servetus and Columbus. It is also now well known that an Arabic writer in the 13th century had guessed at the circulatory movement of the blood as a whole and expressed it clearly. Harvey possibly gained a hint from the work of Cesalpino. Certainly he attended lectures by one of his pupils. Scientific investigators are, in general, eminently receptive of suggestions. Cesalpino, however, did not stress the circulatory idea, or found any doctrine or practice on it, or support it by experimental proof, or give it a prominent place.

Now science is not "bright ideas." If it were every sixth form would contain several scientific geniuses. Nor is it a grand scientific merit to make suggestions. If it were Plato would constantly be studied by students of geology and Lucretius by students of chemistry. Science is the process of demonstration by carefully described experiment and/or observation and the making therefrom of such deductions as lead to further demonstrations. That is where Harvey comes in. That is where Cesalpino goes out.

It is not the historian's task, or indeed within his power, to place scientific figures in order of merit. Cesalpino was a very able man cursed by an obstinate philosophic conservatism and a poor literary style. In these respects he resembled Harvey. His scientific interests were wider than Harvey's. Beside his medical writings he made significant contributions to the nascent sciences of mineralogy and botany. To mineralogy Cesalpino contributed *De metallicis* (Rome, 1596), which is a basic work for modern crystallography. Moreover, he had a pupil, Mercati (1541–93), who predeceased him but whose beautiful *Metallotheca* (Rome, 1717), published long after, carried on the master's tradition. In botany Cesalpino's *De plantis* (1583) contains the first attempt at a "natural" classification of plants, which leads through Joachim Jung, Bauhin, and Ray to Linnaeus, as has been generally acknowledged by botanists. Cesalpino is thus an important if secondary figure in an age of scientific giants: Copernicus, Vesalius, Galileo, Stevinus, Kepler, Descartes, etc. In the reviewer's judgment Harvey too is below the rank of these, since, though a superb experimenter—which Cesalpino was not—his field was relatively narrow, he lacked wide generalizing power, could not free himself from Aristotelian prejudices, and was backward in philosophic outlook.

We would place the total achievement of Cesalpino as high as does Dr. Arcieri. Unfortunately that ardent advocate of everything Italian devotes most of his not unuseful book to unmasking a supposedly widespread Anglo-American plot to belittle Cesalpino. But the difficulty of historians is to give exact meaning to what Cesalpino did say on the circulation. In his last work he bursts into sudden and unexpected clarity with the statement: "The fount of the blood in the heart is distributed into four vessels—namely, the cava, the aorta, the pulmonary vein, and the pulmonary aorta—[and] irrigates the whole body like the four rivers *going forth from* Paradise." This seems a plain contradiction of a circulatory doctrine. In denying that this is so Dr. Arcieri places his hero in the position of a famous Cambridge character:

> "There once was a man on a syndicate
> Who arose his opinions to vindicate;
> He wished to deny
> That he meant to imply
> The ideas which his words seem to indicate."

In truth Cesalpino was not quite sure himself what he meant about the movement of the blood. Such vague uncertainty is common among scientific pioneers. But on this matter Harvey was sure, and that is his special merit.

We must all try to keep our tempers, and the reviewer is confident that, for the blessing of peace, all his fellow conspirators will gladly accept Dr. Arcieri's estimate of Cesalpino on other matters. They would prefer that he should not defame the character of Harvey if they cannot persuade him of his scientific merits. As to his treatment of their own characters they will, he is sure, show themselves much less sensitive.

GEORGE OWEN: PHYSICIAN TO HENRY VIII

What little is known about Owen will be found in Munk's *Roll of the Royal College of Physicians*. He has been credited with having performed Caesarean section on Jane Seymour at the birth of Edward VI. It is known that in company with Sir William Butts (then Dr. Butts) he signed a report on the Queen's health on Oct. 24, 1537. Here is an early example of antenatal care. Henry was desperately anxious to have a legitimate male offspring and may have been genuinely concerned about the Queen's health. Jane Seymour died in childbirth later in the year 1537. Perhaps the operation was performed at the point of death of the mother.

Owen was born in Worcester diocese and was educated at Oxford. Doubtless he was of Welsh ancestry. The King appointed him an executor of his will and left him £100. He died on Oct. 18, 1558, and was buried in St. Stephen, Wallbrook. From the State Papers of the period we learn that he received considerable grants of monastic property, much of which had belonged to Abingdon. He had also an annuity from St. Augustyne's, Bristow (Bristol), in 1542. In the same year he had a licence to alienate the meadow called Bewley Mede, on the N.W. side of the stone causey leading from Oseney Bridge to the new bridge over Bulstake water, to Robert Morwent, Clerk. This is one of several licences obtained at this time, and he appears to have had a part interest in the lordship of Cumnor Place in company with John Bridges, M.D.

Owen's will (*P.C.C. Chaynan* 11), dated 5. Philip and Mary (1558), was proved May 26, 1559. He left his "Soule to Jesus Christ, Body in the earth. To my wif all such stuf and goodes as in her house at Marten and here in London; my plate that I had before I was maryed onely excepted. Sonne William, Goddes blessing and myne. Sonne Edward £10 yerely at hands of Sonne Richard and to be ruled by him till 24. Daughter Lettyce £100, to have meate and drynke with my sonne till she marry. I forgive Henry Jusse debts and rents due. To Thomas Crowe reversion of Galburys hole at Whatley, paying £4. To Ryse reversion of Harparishold at Woolvercot. Henry Colley and John Lambe a hole yeres wages William Jonys 20/-. Lewes, my bayly, half a yeres wage. Mister Collyns, a white mare. To Woolvercote church a young cowe to be put to some use that I may always be prayed for." The will was witnessed by John Collins, priest, and Henry Jusse, of Yarnton. The executors, Sonne Richard Owen, Mr. Secretary Boxall, Mr. Wendy, and Sir Leonard Chamberlayne, were empowered to sell land at Chorlton, Watly, Fincote, and apparently his wife's manors of Budcombe and Congresbury. Of these Wheatly, Wolvercot, and Yarnton are all near Oxford. Chorlton I imagine is Charlton-upon-Otmere, also in Oxfordshire. Congresbury is in Somerset.

What lies behind the queer legacy to Sonne William: was he already provided for, or had he been an unruly, troublesome son? I much fear the latter. And the legacy of the young cow to Wolvercot Church is most unusual. Had it been with the idea of keeping the churchyard cropped, a few sheep would have been better. Did he contemplate a supply of free milk for the children? One would like to know, but I cannot offer an explanation. We have all heard of parish bulls, and those who are fond of *Tristram Shandy* will remember that Mr. Walter Shandy, "whether by ancient custom of the manor, or as impropriator of the great tythes, was obliged to keep a bull for the service of the parish"; but this was a manorial matter, not an ecclesiastical, and had Owen wished to leave a memento to the parson he would surely have been more definite. I suspect that the John Collins, priest, who witnessed the will got the white mare for his legacy.

R. R. J.

BRITISH MEDICAL JOURNAL

LONDON

SATURDAY MARCH 23 1946

HOW LONDON SAW IT THROUGH

Population statistics, like weather forecasts and other useful or interesting information, were withheld during the war, and now that the figures can be released they furnish some surprises. For many years, even since the beginning of the century, the population of the county of London has been regarded as four millions or so—in the middle 'twenties it reached four and a half millions—though even before this last war it was declining in favour of Middlesex, Surrey, and Kent; but it comes as a shock to realize that, according to the Registrar-General's estimate, the population of London in the war years fell to two and a half millions. Those who lived in London throughout the war were hardly conscious of the absence of so large a number of their fellow-citizens, but evacuations, official and unofficial, were larger than might have been supposed. The general death rate mounted during the war, but such was the solicitude for the child and its mother that in spite of all adverse conditions the infant mortality in 1944—namely, 51 per 1,000 births—was considerably lower than the average (57) for the years 1936–40, and the maternal mortality also declined to 1.70 in 1944 from 2.02 in the earlier period. The maternal death rate was the lowest recorded; the infant death rate was the lowest except for 1942, when it was 50. This is the more remarkable achievement when it is remembered what disorganization resulted in London from air attack, how frequently antenatal care must have been interrupted, and how uncertain must have been the booking of maternity beds. As for the commoner infections—measles, scarlet fever, diphtheria, and whooping-cough—the mortalities were minimal, the highest in all the war years being for whooping-cough in 1944, when the deaths numbered 0.05 per 1,000 of population. In that same year there were only seven deaths from scarlet fever and seven from measles; this in a child population which even in the evacuation period must have numbered three-quarters of a million. A condition which leads to a disquieting number of infant deaths is diarrhoea and enteritis. There were 427 deaths from this cause in 1944 among children under 2 years of age. This rate has increased since 1939, and research is being undertaken into the reasons for its persistence.

The interim report for 1944 of the County Medical Officer of Health for London[1] reveals for the first time, for each of the metropolitan boroughs, the number of deaths due to enemy action during the entire war period. The total death roll in the air raids was 17,811—almost equal to the entire population of the borough of Holborn. The peak year was 1940, with 7,793 deaths, but 1944, with its flying bombs and rockets, took a further toll of 4,567 lives. It was sometimes said, loosely, that the chance of being killed in a raid was not greater than the chance of being killed in a street accident, but in fact during the war years there were ten times as many fatal casualties in raids as there were due to vehicles on the roads.

The story of the hospitals in the raids is a proud one and deserves something better than ephemeral record. There were 660 county hospital "incidents" altogether, and hospital accommodation providing beds for 5,000 was totally destroyed. During the flying-bomb and rocket period alone hospitals were damaged on 138 occasions. The number of patients killed was 257, and of staff 62. "No matter what happened," says Sir Allen Daley in this report, "staff of all grades were undaunted and showed an example of unquenchable spirit, high morale, and devotion to their task of attending the sick and injured, the memory of which will never leave those who were responsible for ensuring that the service did not fail." The patients, too, showed a fortitude, even a defiance of the terror, which was remarkable. A special word of praise is due to the ambulance men, who carried on though several of their stations were destroyed and the lives of some of them were lost; and to the hundred or so domiciliary midwives employed by the L.C.C., about half of whom had their homes wrecked or damaged, yet no woman in childbirth went unattended. The school medical service carried out its normal functions, and in addition, in 1944, was responsible for the pre-evacuation inspection of 118,000 children. This later evacuation brought no complaints from the receiving centres.

On the preventive side the report gives particulars of the mass radiography service, carried out at six centres. As a result of 46,671 miniature films taken during the year, 1,795 persons were called for further investigation, and among them 355 showed apparently active tuberculous lesions. The diagnosis was confirmed by the tuberculosis officer in 298 cases; 28 were doubtful, and the remainder refused investigation or were awaiting further report. Attendance at the venereal diseases clinics for men has fallen consistently during the war years, and at those for women less consistently, but this, as is well known, does not denote a general fall in incidence. It is due mainly to the absence on war service of a large proportion of the population of the ages at which exposure to infection is most likely. During 1944 there was a large increase in the number of alleged contacts reported under Defence Regulation 33B, and in some cases contacts were traced and were persuaded to undergo examination. Only 14 contacts were prosecuted for failure to attend for examination or to submit to or continue treatment.

One further fact, characteristically British, may be noted. During all the upheaval of the flying bombs and evacuation a highly successful medical society was formed with 300 foundation members, all of them medical officers of the L.C.C. staff. The aim of the society is to encourage contact between medical staffs of county hospitals and of neighbouring municipal and voluntary hospitals and general practitioners, and to give opportunity for the discussion of clinical problems.

[1] London County Council. Interim Report of County Medical Officer of Health and School Medical Officer for the year 1944. (Price 1s. 6d.; post free, 1s. 8d.)

CONTRACEPTION AND INFERTILITY

The possibility that semen from the male may have effects, other than fertilization of the ovum, on the female organism has long interested members of the medical profession and others. It has many practical implications which from time to time have attracted questions from readers of the *Journal* and discussion in our correspondence columns. Kohlbrugge's theory that the products of degeneration of spermatozoa are absorbed by the uterine glands and exert an endocrine action in the female, possibly accounting, among other things, for the fact that a woman in the course of years becomes more and more like her husband, is now discredited. (Hartman[1]). The old doctrine of telegony, which supposed that the offspring of a female animal might resemble not the father but an earlier mate whose semen had had a permanent effect on the mother, has been " relegated to the limbo of folk-lore " (Hartman[1]), though at one time it was regarded as a possibility by biologists of eminence. Then came the demonstration of the production of spermatoxins consequent upon the parenteral administration of semen to the female, and it was postulated that in some circumstances these might develop as a result of the frequent deposition of semen in the vagina, and thus temporary sterility of the female might follow repeated coitus. Some have held this theory to account for the occurrence of pregnancy when the partners of a previously infertile marriage are reunited after a long period of separation. The results of animal experiments on the production of spermatoxins and consequent sterility, which are reviewed by Hoffman,[2] are generally regarded as inconclusive. The occasional occurrence of pregnancy in the circumstances stated above can be accounted for in other and more rational ways.

In more recent years it has been suggested that some of the chemical constituents of the seminal fluid, rather than the spermatozoa themselves, are absorbed by the vagina and are of value to the female organism. It is said that women experience a sensation of well-being as a result, and it is even alleged that sometimes the odour of semen can be detected in the breath of women after coitus (Van de Velde[3]). Such statements are largely unsubstantiated, but in 1943 Green-Armytage[4] reported the results of a series of experiments in which immature rats and rabbits were injected with human semen. He found that the uteri of the animals responded by hypertrophy, and concluded that human semen contains some hormone (? testosterone) which, when absorbed by the vagina, is of importance in promoting full development of the female genitalia. From this it was argued that those methods of contraception which prevent the semen from coming in contact with the vagina (e.g., coitus interruptus, condom) are harmful in that they hinder full uterine development and may therefore result in sterility or lowered fertility. Although Green-Armytage's interpretation of his experimental results, and the clinical significance applied to them, have not been generally accepted, the matter has remained *sub judice*. The position now appears clarified by the work of Bacsick, Sharman, and Wyburn,[5] who have recently repeated Green-Armytage's animal experiments and have failed to confirm his original findings on which the argument was based. They injected human semen repeatedly over varying periods into immature female rats, rabbits, and guinea-pigs, and also adult spayed guinea-pigs, controlling their experiments by animals of similar state, some of which were untreated and some treated with testosterone. The vagina, uterus, and ovaries were in each case examined for responses, and it was found that the injection of semen into the immature rats and rabbits had no effect at all on the genitalia. In the immature and adult spayed guinea-pigs there was some increase in the size of the uterus, but the authors point out that this finding is open to several interpretations and is by no means proof of hormonal activity on the part of the semen. In no case was the effect comparable to that of testosterone, and the conclusion drawn from these experiments is that there is no evidence that human semen contains either androgenic, oestrogenic, or gonadotrophic hormones. Bacsick and his colleagues not only express the opinion that final development or maturation of the female uterus does not depend on semen absorption, but further point out that, even if testosterone is of importance in this process, then the female already has an adequate supply of her own, for androsterone is normally excreted from the female in amounts comparable to that found in the urine of the male.

If further work on these lines confirms the negative findings of Bacsick we are left without any conclusive evidence in favour of the not very likely supposition that semen deposited in the vagina has any endocrine function, or that it has any special effect, other than fertilization, on the female organism. This, however, does not exclude the possibility that contraception may affect female fertility adversely by some other mechanism. Some methods, such as intra-uterine appliances or powerful chemicals which involve a real risk of injury and infection, are clearly dangerous from this standpoint ; but what of other methods ? It is alleged that even chemical pessaries of repute may lower fertility by favouring the development of cervical lesions such as erosion. It is said that coitus interruptus may disturb ovarian function, while the mere deprival of the uterus of the fulfilment of its function by any method may increase the likelihood of fibroids and pelvic endometriosis. Some gynaecologists of wide experience, and whose opinions cannot be lightly discounted, therefore, take the view that the artificial deferment of pregnancy may, by one means or another, lead to relative infertility. There has been little attempt to substantiate these clinical impressions by controlled observation—indeed, it would be difficult to do so. Siegler,[6] however, in his recent book reports that in a study of 1,262 cases of pregnancy he found an average of two months' infertility for every year of contraception practised beforehand. However, such findings are open to several interpretations, and Dickinson and Morris[7] in a sixteen-year study of cases of infertile marriage could find no evidence of sterility's being induced by

[1] *Sex and Internal Secretions*, 1939, Chapter 9. Edited by E. Allen. The Williams and Wilkins Company, Baltimore.
[2] *Female Endocrinology*, 1944. W. B. Saunders Company, Philadelphia and London.
[3] *Ideal Marriage*, 18th impression, 1944. Wm. Heinemann Medical Books Ltd., London.
[4] *Proc. roy. Soc. Med.*, 1943, **36**, 105.
[5] *J. Obstet. Gynaec. Brit. Emp.*, 1945, **52**, 334.
[6] *Fertility in Women*, 1945. Wm. Heinemann Medical Books Ltd., London.
[7] *Technique of Conception Control*, 1941. The Williams and Wilkins Company, Baltimore.

contraceptive methods other than those involving intrauterine appliances. Hamblen[8] probably states the general view when he says, "There is little likelihood that contraceptive measures of the kind generally employed at present have any tendency to impair the potential fertility of couples." At least there seems as yet no reliable evidence to the contrary.

WHAT IS GASTRIC FLU?

A diagnosis of gastric flu, or intestinal grippe as the Americans call it, is to-day made more often by the layman than by the medical practitioner. Medical men are far less prone to diagnose "gastric flu" now that they are increasingly aware of the part played by the Sonne dysentery bacillus, bacterial food-poisoning due to the Salmonella group of organisms, and the enterotoxic staphylococci in the causation of endemic or epidemic diarrhoea. Improvements in laboratory technique have enabled a bacteriological diagnosis to be made in a very high proportion of these bacterial infections even after the acute attack is over, since convalescent carriers are common after both dysentery and Salmonella food-poisoning. When, therefore, the bacteriologist fails to recover an identifiable pathogen from a patient with acute diarrhoea the clinician is puzzled and the diagnosis is in doubt.

There have been many instances of this kind in the past few years, and it is obvious that a non-bacterial contagious illness, characterized by profuse watery diarrhoea, sometimes associated with nausea and vomiting, or with these last two symptoms predominating, has become prevalent in certain areas in this country. Outbreaks of this non-bacterial diarrhoea, which in the individual is usually so short-lived as not to call for medical aid, are most likely to be detected in hospitals or residential institutions. Since 1936 several outbreaks of nausea and vomiting have been reported from boys' and girls' boarding schools. The characteristic features, as described by Bradley,[9] were the sudden onset of projectile vomiting, sometimes in the middle of the night, sometimes at the dining-table, and sometimes preceded by nausea resembling seasickness. In these outbreaks diarrhoea was not a prominent feature; vertigo and headache might be present, but generalized aching was rare; chills were infrequent and low-grade pyrexia (around 100° F.) was the rule; lassitude and irritability suggestive of central nervous system involvement were not uncommon. Respiratory symptoms were not a frequent complaint, and when present were probably coincidental, but hyperaemia of the tongue papillae was a noteworthy feature in Bradley's cases, and injection of the fauces and pharynx was sometimes present. Abdominal discomfort and tenderness which may result in a diagnosis of acute appendicitis have been noted.

More recently, diarrhoea has been the prominent symptom in this syndrome, as typified by an outbreak in a maternity unit described in our columns last year by Brown, Crawford, and Sient.[10] Both mothers and babies were affected, although in the babies the infection was much less severe than is the case with epidemic diarrhoea of the newborn. Diarrhoea characterized by profuse watery stools without blood or mucus was usually the first and most constant feature, although nausea and anorexia were present in most of the adult patients. The persistence of the infection in maternity units is probably related to the rapid turnover of patients. A very similar condition apparently common in America has been described by Reimann and his colleagues.[11] According to them the disease attacks people at all ages, but is most common in school-children and young adults. It may occur at any season, but especially in the autumn, and it may affect 15 to 100% of the community. In its rapid and easy spread in families and in institutions it resembles the behaviour of the common cold or influenza, and Reimann[12] has been able to reproduce the infection among more than half of 53 student volunteers who inhaled atomized throat garglings or faecal filtrates from acute cases. Thus the experimental evidence supports epidemiological data suggesting that the infection may be air-borne, although obviously manual or other means of spread cannot be excluded. Control of the infection in hospitals or other institutions is not easy. Avoidance of overcrowding or temporary closure of maternity units is virtually impossible at the present time, when there is a spate of new babies and a shortage of hospital beds. But good ventilation and the strictest precautions against the risk of manual transference should be practised. Treatment is symptomatic: abdominal pain and discomfort can best be relieved by the local application of heat, together with rest and limitation of diet. Phenobarbitone or tinct. camph. co. may be prescribed for the intestinal upset.

Virus infections of the intestinal tract have in the past been regarded as rare or non-existent, but the demonstration of the aetiological agents of poliomyelitis and infective hepatitis in the stools of affected patients suggests that the intestine is no more immune than other tissues to attack by viruses. Whether this particular entity is primarily an infection of the intestine or, as has been suggested, of the central nervous system can be determined only by further experimental work.

CHORIONIC GONADOTROPHIN

The hormone present in pregnancy urine has been known for many years. Its biological actions have been interminably investigated, and it has been used extensively in clinical and veterinary treatment, yet no one has succeeded in explaining its function in human pregnancy. Hisaw[13] has recently investigated this problem in macaque monkeys: their sex cycles are similar to those in women, and they excrete chorionic gonadotrophin. He first demonstrated a hitherto unnoticed action of the hormone. Taking monkeys in the luteal phase of their cycle, and making sure by laparotomy that an active corpus luteum was present, he then gave daily injections of chorionic gonadotrophin. The onset of menstruation was delayed in every case, the average length of the cycle being 42 days instead of the normal 27. When menstruation did occur it took place from a progestational endometrium, showing that corpus luteum function had been maintained. Corpora lutea produced by gonadotrophin injections were also kept in functional activity by chorionic gonadotrophin for as long as naturally occurring corpora lutea. Hisaw has thus demonstrated that chorionic gonadotrophin has a luteotrophic action, and this action is different from, or at all events more prolonged than, that produced by pituitary luteotrophin (prolactin). This last hormone given in high doses under similar conditions did not delay the onset of menstruation.

In the corpora lutea from the injected monkeys histological changes were similar to those described by Corner[14] as occurring in early pregnancy. The walls of the endometrial blood vessels, too, were in some cases hypertrophied

[8] *Endocrinology of Woman.* Charles C. Thomas, Springfield, Illinois.
[9] *British Medical Journal*, 1943, **1**, 309.
[10] Ibid., 1945, **2**, 524.
[11] Reimann, H. A., Hodges, J. H., and Price, A. H., *J. Amer. med. Ass.*, 1945 **127**, 1.
[12] *Proc. Soc. exp. Biol.*, N.Y., 1945, **59**, 8.
[13] *Yale J. biol. Med.*, 1944, **17**, 119.
[14] *Amer. J. Anat.*, 1936, **59**, 433.

(epithelioid cytomorphosis), as in the maternal vessels of the monkey's placenta. The condition of the sex skin and vagina during the injection period resembled that provoked by combined oestrogen and progesterone treatment in spayed monkeys.

On the basis of these experimental findings the author speculates on the normal role of chorionic gonadotrophin in the monkey. He suggests that the corpus luteum is maintained in a secreting condition until the time of normal menstruation by pituitary luteotrophin (prolactin). When fertilization and implantation occur the trophoblast is already developing by the time menstruation should ensue, but its onset is prevented by the secreted chorionic gonadotrophin, which maintains the functional corpus luteum for a further 10 to 15 days. When menstruation takes place during injections of chorionic gonadotrophin the corpus luteum is undergoing morphological changes which are similar to the characteristic changes seen in normal pregnant monkeys at the same time after ovulation.[14] Hisaw therefore suggests that the bleeding in the injected animals is caused by progesterone withdrawal, and does not occur in normal pregnancy, because the placenta is then functional and takes over the ovarian function of secretion of progesterone.

Hartman[15 16] has demonstrated that ovariectomy in monkeys will not interfere with pregnancy if carried out later than 25 days after ovulation. Oestrogen secretion by the monkey placenta has been reported,[17] but progesterone secretion has still to be proved. Nevertheless the hypothesis is certainly consistent with most of the facts.

THE STARVED BUT NOT CORRUPT KIDNEY

Since the days of Clifford Allbutt benign hypertension has been recognized as a disease which ultimately kills by a vascular catastrophe in the heart or brain, without causing attrition of renal function of any clinical significance. In its benign evolution the disease is associated with a premature ageing and hardening of arteries and arterioles which differs structurally from the arteriosclerosis of non-hypertensives only in severity and distribution.[18] In benign hypertension there is a more severe sclerosis of the renal arteries; but in spite of this greater impact of premature age on the kidneys the natural history of the disease tells us that they usually stay the course. There is abundant clinical and pathological justification for applying Allbutt's classical description of the senile arteriosclerotic kidney to the prematurely aged kidney of benign hypertension—"a starved but not a corrupt kidney sufficient for the smaller life of an elderly man." Yet renal function in benign hypertension might be adequate for normal needs but show some diminution when assessed by sufficiently delicate or selective tests. Murray McGeorge[19] applied such a test, primarily in quest of prognostic data, and observed the capacity of the kidneys to concentrate simultaneously urea and chloride[20] in benign hypertension and in a suitable group of non-hypertensive controls. Although there was no evidence that the test was of prognostic value, McGeorge's observations of the effect of age on renal function are interesting and conform with the pathological concept of the disease. The test was sufficiently delicate or selective to show a progressive impairment of renal function with increasing age—an impairment which was much greater in benign hypertension but perceptible even in the non-hypertensive controls. Young subjects, whether hypertensive or not, started without significant difference in renal function. When the pathological picture is considered, it seems probable that assessment of other bodily functions would show a similar steeper decline in benign hypertension if sufficiently delicate tests were available. Normal age has its gentler downward slope, but in benign hypertension "some are too early old, and before the date of years."[21] In turning to the laboratory for renal function tests it is well to be reminded that the best test of renal function is that the kidneys continue to function.

[15] *Amer. J. Obstet. Gynec.*, 1939, **37**, 287.
[16] *Proc. Soc. exp. Biol.*, N.Y., 1941, **48**, 221.
[17] Dorfman, R. S., and Van Wagenen, G., *Surg. Gynec. Obstet.*, 1941, **73**, 545.
[18] Moritz, A. R., and Oldt, M. R., *Amer. J. Path.*, 1937, **13**, 679.
[19] McGeorge, M., *Quart. J. Med.*, 1945, **14**, 171.
[20] Smirk, F. H., *Clin. Sci.*, 1933–4, **1**, 131; *Proc. roy. Soc. Med.*, 1934, **27**, 1485.

CONVULSIONS FOR DEPRESSION

In the annual report of the Cassel Hospital,* Andratschke and Rogerson have described their findings with the electrical convulsive treatment of mild depressive psychoses. The report is interesting because of the comparison it provides between treated and untreated patients. The control group was taken from the years 1938–9, before this method of treatment was in use. The patients then had to be more strictly selected for a favourable prognosis, and with them the better results should have been obtained. Nevertheless results were substantially and significantly better in the group given convulsion therapy. The authors conclude that the position has now been reached when convulsion therapy is the treatment of choice, and definite contraindications must be present before its use is decided against. Complications are rare and not very serious; and the convulsion treatment of out-patients is justified if there are facilities for admission to hospital if required. The patients who did not respond to electro-convulsive therapy provide an interesting clinical study. In half of them treatment had to be abandoned prematurely or the patients passed out of observation before the final result could be observed. Of the remaining nine patients, three had serious psychopathic features such as alcoholism or homosexuality, three had schizoid traits and two actually became schizophrenic, and three were typical cases of recurrent manic-depression. Electro-convulsive therapy in the neuroses was not so satisfactory. Only patients with anxiety states did well; obsessional and hysteric cases did not respond. The authors believe, however, that electro-convulsive therapy can be useful in the treatment of anxiety neurosis, at least in selected patients.

The following members of the medical profession were recommended by the Council of the Royal Society for election to its Fellowship at the annual meeting on March 21: G. L. Brown, M.B., M.Sc., of the scientific staff of the Medical Research Council; G. R. Cameron, D.Sc., F.R.C.P., professor of morbid anatomy at University College Hospital Medical School; Brig. J. A. Sinton, V.C., M.B., consultant malariologist to the War Office; J. W. Trevan, M.B., F.R.C.P., director of the Wellcome Physiological Laboratories; and F. M. R. Walshe, M.D., F.R.C.P., physician to the National Hospital, Queen Square, and physician in charge of the neurological department, University College Hospital.

[21] Browne, Sir Thomas, *Religio Medici*, V, London.

* Present address, Ash Hall, Bucknall, Stoke-on-Trent, from Swaylands, Penshurst, Kent.

FREE AMBULANCES TO LONDON VOLUNTARY HOSPITALS

The London Ambulance Service has hitherto provided on a pay basis for the removal of patients to voluntary hospitals. On and after April 1 next no charge will be made by the London County Council to either patient or hospital for patients removed from an address in the County of London to a voluntary hospital in the county, except for those admitted to pay wards, in which cases the existing charges will continue. For the present the service will *not* be available without charge for (i) discharges in need of an ambulance on medical grounds, (ii) out-patients receiving treatment, (iii) removals to or from places outside the County of London. Applications for the use of a free ambulance will be accepted by the headquarters of the London Ambulance Service (Waterloo 3311) *only from the voluntary hospitals in the County of London, or the Emergency Bed Service.* Medical practitioners should not make direct application to the London Ambulance Service, but in order to be sure that a bed has been definitely obtained they should make arrangements for the patient's admission with either the voluntary hospital concerned or the Emergency Bed Service (Clerkenwell 6571 ; City 2162). An ambulance attendant will always accompany the driver when recumbent patients are to be removed ; if a nurse is required to travel with the patient she will be provided by the hospital. With non-recumbent patients the ambulance driver only will be sent, and in the case of a female patient arrangements should be made for a relative or friend to accompany her unless a nurse is required, in which case she will be provided by the hospital.

FILING AND INDEXING OF UNPUBLISHED MATERIAL

In research and information departments of scientific institutions, in editorial offices, in public health organizations, and in medical libraries extremely important information is often contained in technical memoranda, newspaper cuttings, catalogues, and correspondence. Not infrequently is it essential to find a document at a moment's notice, and its contents must therefore be indexed in such a way that the information is immediately available.

A well-attended and stimulating conference in London organized by ASLIB (Association of Special Libraries and Information Bureaux) on Feb. 15 at Friends' House, Euston Road, under the chairmanship of Capt. H. Ward, M.Sc., secretary of the Industrial Management Research Association, was devoted to a discussion of problems of filing and indexing unpublished material. Miss M. Shaw said that in the laboratories of J. Lyons & Co., Ltd., the correspondence section was thought to be as much a part of the information service as the library and was under the supervision of the librarian. Dr. J. E. Holmstrom (I.C.I. Ltd. Central Registry) defined filing as a branch of documentation more akin to librarianship than to other office work, though it differed from normal librarianship because a file was not, like a book, a completed unit of knowledge which already had a title and whose scope could be ascertained by inspection. The filing of current papers involved deciding where to fit them into place in a pattern which had not yet taken shape. The speaker suggested a special course in business filing as distinct from ordinary librarianship, expressing the hope that ASLIB might promote such a scheme.

The discussion would have been even more valuable for a quantitative interpretation of statement and suggestions. Every organization has its own peculiar problems and difficulties, numerical and geographical, and no one system will suit everybody. An elaborate system may be evolved which enables a given document (asked for, perhaps, once a month) to be found in three instead of thirty minutes, thirty minutes a day being spent by a highly skilled, well-paid staff in putting the system into execution. It was generally agreed that filing and indexing was a skilled job, and yet the registry was the last department where any employee wanted to go. Filing clerks were difficult to obtain, being poorly paid. The question of nomenclature was all-important, and it was a matter for regret that there was no popular equivalent in the English language for the French *archiviste.* Index cards (authors and subjects), extracting the maximum information from documents in the files, were valuable for giving a story at a glance without having to go to the file for its reconstruction.

Other speakers in the discussion dealt with a variety of technical problems such as size and arrangement of files, tags, storage, and headings for correspondence. It is understood that the papers and the discussion will be published by ASLIB, and librarians, hospital administrators, information officers, and editors will no doubt look forward to this report with interest. It is particularly hoped that some of the ideas expressed at this conference will bear fruit in large medical libraries, which have a dynamic function to perform in bringing unpublished material to the attention of interested people.

EMPLOYMENT OF THE DEAF

The Disabled Persons (Employment) Act applies to the deaf as well as to other disabled persons, and vocational training adapted to the needs of the deaf is being extended. The National Institute for the Deaf (105, Gower Street, W.C.1), in its last annual report, states that it has been informed that the option of registration rests entirely with the deaf person, but the deaf person, unless registered, cannot count towards the quota of his employer. In the case of school-leavers the certificate of a special school is sufficient evidence of deafness, and in the case of adults a certificate from a recognized association for the deaf would in general be accepted. Cases of doubt as to whether the deafness constituted a handicap to employment would be referred to a district advisory committee, but the final decision would rest with the Minister. The Institute suggests that welfare workers for the deaf should advise all deaf persons to register as disabled persons at the first opportunity.

In a recent International Labour Office publication dealing, among other things, with services for the deaf in Great Britain it is stated that the principal obstacle to the employment of the deaf is social prejudice, but that, on the whole, the public are becoming more open-minded about the employment of deaf and hard-of-hearing persons, and the success which most experiments have achieved and the knowledge acquired thereby will probably help to overcome remaining prejudices.

EDUCATION FOR FAMILY LIFE

There is widespread concern to-day about present population trends, the increase in marriage breakdown rate and juvenile delinquency. These problems are symptoms of something much deeper, and a merely negative attitude is unlikely to be effective in solving them. The family was under constant attack during the war and at least for a generation before. Not the least enemy of the family is ignorance. One of the most effective means of counter-attack is education.

The British Social Hygiene Council, in collaboration with the Association for Education in Citizenship and the Marriage Guidance Council, is organizing a week-end school, the first of its kind to be held in the country, to take place in Morley College, 61, Westminster Bridge Road, London, S.E.1, from Saturday, April 27, to Tuesday, April 30. It is designed primarily to meet the needs of teachers and youth leaders; parents, social workers, and others interested will be welcome. The following will speak: Mr. Cyril Bibby, Dr. McAlister Brew, Mrs. E. Hubback, Dr. Housden, Dr. David Mace, Mrs. Mace, Mr. R. Weatherall, Dr. Taylor (Governor of Holloway Prison). The inclusive fee is 10s. Application for tickets should be made to the British Social Hygiene Council, Tavistock House North, Tavistock Square, London, W.C.1, whence further details can be obtained.

FUTURE OF NORTHERN IRELAND HOSPITALS

Northern Ireland had a visit recently from members of the Nuffield Provincial Hospitals Trust. They went on the invitation of the Northern Ireland Regional Hospitals Council on the occasion of a meeting of the Council at which the reports of a co-ordination committee and fourteen subcommittees on hospital planning for the region were presented.

The visitors were Sir Ernest Rock Carling, F.R.C.S., chairman of the Medical Advisory Committee of the Trust, Sir George Martin, chairman of the Yorkshire Regional Council, Mr. L. Farrer-Brown, secretary to the Trust, and Mr. C. M. Abbott, assistant secretary.

On the afternoon of their arrival they paid a visit to the Royal Victoria Hospital, the premier voluntary hospital in the region. They were, perhaps, most interested in the extensive development plans which that hospital has well under way. The following morning a visit was paid to the Newtownards District Hospital, a converted Poor Law hospital, and the Bangor Hospital, a small but first-class country hospital, run, in the main, by the local general practitioners.

The meeting of the Council was held in the afternoon, but before that the visitors were the guests of the Northern Ireland Minister of Health to luncheon. In the evening a dinner was given by the Council, at which the principal guests, in addition to the representatives of the Trust, were the Prime Minister of Northern Ire[illegible] and the Minister of Health for Northern Ireland.

Dr. D. Lindsay Keir, Vice-Chan[illegible] Belfast, is chairman of [illegible] Council, and [illegible]

operation need no longer be a matter of great urgency. It could safely be delayed until the meningitis was under control. In the acute cases an operation need not be done other than the simple one necessitated by drainage. Penicillin did not sterilize pus inside an abscess cavity, and it seemed that myringotomy provided the necessary drainage, except in the case of an extradural abscess.

Acute Inflammati[illegible]

Mr. T. [illegible]

	12:30	6:30	7:00	7:30	8:00	8:30	9:00	9
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Mr. F. W. WATKYN-THOMAS asked whether there was any evidence that penicillin, unless administered by the intraventricular route, could actually [illegible] substance. He added that he was not [illegible] Honor Smith's paper, and [illegible] abandon the [illegible] H. V. FOSTER [illegible] had recovered [illegible] old days one [illegible] media to [illegible] by saying [illegible] elping cases [illegible] co-operation [illegible] also been [illegible] for setting [illegible] said that [illegible] over the [illegible] ing tire- [illegible] f intra- [illegible] much [illegible] dose [illegible] given [illegible] most [illegible] essive [illegible] and [illegible] t to [illegible] age [illegible] nal [illegible] oy [illegible] nt [illegible] i- [illegible] ll [illegible]

genital pouch of the bladder wall. The mass reduced itself spontaneously as soon as the bladder was distended with fluid, and was easily ligatured and removed through the dilated urethra. The fourth case was that of a woman aged 43 in whom a smooth purple piece of tissue about the size of a Victoria plum was found protruding through the urinary meatus. As she had had amenorrhoea for three months her doctor thought that this mass must be a portion of placenta following an incomplete abortion and attempted to pull it away digitally. He (Mr. Stacey), after dilating the urethra still more, found that the mass was attached to the right side of the bladder in the region of the right ureteric orifice. It was tied off and cut by the sense of touch, and on removal was found to be a papilloma of the bladder, which had undergone torsion at its base, and a portion of the right ureter. The patient made an uneventful recovery, and on cystoscopic examination a few days later both ureters were seen to be secreting well, though the right ureteric orifice was about 1 cm. in diameter.

Dr. DUDLEY RACKER, of Manchester, described a case in a young girl serving in the A.T.S. of an obturator hernia containing a portion of the right Fallopian tube and the distal part of the appendix. It caused a great deal of pain in the right iliac fossa with nausea and pain down the leg. The case had been diagnosed and investigated as one of gonorrhoea with a possible spread of the infection into the Fallopian tubes. Dr. Packer said that vaginal examination revealed a mass in the region of the obturator foramen. At operation the ovary was found to be lying close to the opening of the hernial sac, and both the appendix and the right Fallopian tube were removed.

Prof. T. N. A. JEFFCOATE showed an unusual specimen of an extracervical squamous epithelioma, and Dr. HERD one of a placental chorio-angioma. Dr. R. NEWTON described a case of post-menopausal haemorrhage due to a minute granulosa-cell tumour in the ovary which had caused endometrial hyperplasia and a small endometrial polypus.

A meeting of the Chelsea Clinical Society was held at the [illegible] Kensington Hotel on Feb. 26 under the presidency of Dr. [illegible] MacManus. After dinner Dr. F. Murgatroyd, F.R.C.P., [illegible] a lecture on "The War and Tropical Medicine" and gave an interesting discourse upon the difficulties and the recent advances methods of combating tropical diseases under wartime conditions and explained how their occurrence might be likely to affect [illegible] medical practice in Great Britain.

HEALTH EDUCATION IN SCOTLAND

[illegible] the annual meeting of the Scottish Council for Health [illegible]tion held in Edinburgh Mr. Andrew H. A. Murray was appointed chairman for the ensuing year, and in moving the adoption of [illegible] counts 1945 he, as treasurer, drew attention to the need, [illegible]ve and [illegible]nt, for an increase in funds. The retiring chairman, Bailie [illegible]et Roberton, LL.D., who presided, said that in a very short [illegible]d the council, with the whole-hearted co-operation of the local [illegible]rities, had made its name and aims known not only in the [illegible]ous urban areas but in the small burghs and many of the [illegible]st hamlets and villages of the Scottish coasts and Highlands [illegible]orders. She introduced the newly appointed [illegible]ne medical [illegible], Dr. Alex. G. Mearns, senior lecturer and examiner in hygiene, [illegible]y University.

[illegible]Mearns said that one of the council's aims should be to [illegible]re both the universities and the teachers' training colleges [illegible]heir full share in inculcating the principles of health education. [illegible]e students thus taught would in due course become doctors, [illegible]etc., and would be better equipped to face the difficult task [illegible] [illegible]sual conception that "the customer is always [illegible]alth matters the "customers," he thought, were [illegible] public must not, however, feel that they were [illegible]ealth propaganda must be persuasive and, at [illegible] be truthful and fearless if lasting good was to

[illegible]hat three summer schools would be held this [illegible]s University (June 29 to July 12 and Aug. 3 [illegible]nburgh (July 13 to 27). Dr. W. G. Clark, [illegible] Edinburgh, said that a health week would [illegible]d Leith during the period April 28 to May 5 [illegible] the joint auspices of the council and the [illegible], he said, an intensive effort to reach every [illegible] hoped a pattern and standard would be [illegible]hich would inspire the other large burghs [illegible] better if they can."

115 W. DOTY ST. MADISON, WIS. 53703 PHONE 255-0036 MICROFILM ABSTRACTS

On the afternoon of their arrival they paid a visit to the Royal Victoria Hospital, the premier voluntary hospital in the region. They were, perhaps, most interested in the extensive development plans which that hospital has well under way. The following morning a visit was paid to the Newtownards District Hospital, a converted Poor Law hospital, and the Bangor Hospital, a small but first-class country hospital, run, in the main, by the local general practitioners.

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Dr. D. Lindsay Keir, Vice-Chancellor of Queen's University, Belfast, is chairman of the Northern Ireland Regional Hospitals Council, and the reports presented at the meeting of the Council make far-reaching proposals for the future of all hospitals in the region.

Reports of Societies

PENICILLIN IN OTITIC MENINGITIS

At a meeting of the Section of Otology of the Royal Society of Medicine on March 1, with Mr. A. J. M. WRIGHT in the chair, a discussion took place on "Penicillin in Otitic Meningitis."

Dr. HONOR SMITH presented a paper giving the experiences of the Oxford neurosurgical unit. It related to 37 cases; in 21 the source of infection was otitis, 9 followed a sinusitis, and 7 a fracture through a sinus. In 25 of the cases the organism was the pneumococcus, in 9 the streptococcus, and the others were influenzal or mixed infections. Intrathecal penicillin was used (2,000 units per ml.) in doses of 8,000 to 16,000 units. This was supplemented by the oral administration of sulphadiazine. Systemic penicillin was also given. There was no evidence that systemic penicillin could cure the meningitis: its chief value lay in the control of the primary focus. Intrathecal administration was continued for at least five days from fear of relapse, and in fact 9 of the 37 cases had one or more relapses before final recovery, while yet another patient died in relapse. Penicillin being available, emergency mastoidectomy was no longer necessary for the treatment of otitic meningitis. Both the meningitis and the primary focus could be controlled by penicillin, and if operation was ultimately necessary it could be performed during convalescence. Nevertheless, in those cases in which relapse followed relapse, the idea of an active primary focus constantly reinfecting the meninges and available to surgery made surgery appear very desirable. In the 37 cases there had been 26 recoveries and 11 deaths. Of the otogenic cases 15 recovered and 1 died; of those secondary to sinusitis 6 recovered and 3 died; and of those following fracture 5 recovered and 2 died. She stressed the importance of the diagnosis of brain abscess associated with meningitis. The clinical picture might be dominated by the finding of meningitis and abscess might not be suspected. A complicating abscess was the cause of death in 6 of these cases.

Mr. J. ERIC PATERSON offered some observations based on 6 otological cases treated with penicillin at the Glasgow neurosurgical unit. Two patients died, both of them late cases; the four recoveries had been in early cases. In pre-penicillin days, as well as after penicillin became available, a course of sulphadiazine was given. Penicillin was administered intrathecally, in doses of not more than 40,000 units; sometimes it caused a mild rise of temperature. Intraventricular penicillin was given when there were signs of a block in the cerebrospinal circulation. Systemic penicillin was a most important part of the treatment. His difficulty was to know how long to continue it. He felt that any operation on the ear should not be carried out at the height of the meningitis, and undoubtedly in systemic penicillin they had a potent weapon for controlling further spread from the primary focus to the meninges.

Mr. R. G. MACBETH said that one thing which emerged from the experience of the Oxford workers was that the mastoid operation need no longer be a matter of great urgency. It could safely be delayed until the meningitis was under control. In the acute cases an operation need not be done other than the simple one necessitated by drainage. Penicillin did not sterilize pus inside an abscess cavity, and it seemed that myringotomy provided the necessary drainage, except in the case of an extradural abscess.

Acute Inflammation and Chronic Disease

Mr. T. B. LAYTON said that no distinction had been made in the paper presented by Dr. Honor Smith between chronic ear disease and acute inflammations of the middle-ear cleft. In every paper dealing with an otological subject that distinction should be made. It was as wrong clinically, scientifically, and therapeutically not to make it as it would be to lump together tuberculous peritonitis and the peritonitis resulting from acute appendicitis. Dr. Honor Smith was quite wrong in saying that cerebral abscess was common in streptococcal disease of the ear. It might be common in the very limited type of case with which she and Prof. Cairns had been dealing. He disagreed also with Mr. Paterson when he said that it might become necessary to operate on the acute ear, but that operation had still to be done on the chronic ear. He had made the planned experiment of refraining from operating in meningitis due to an acute ear because he thought the condition of the heart forbade a general anaesthetic. The patient came out of the meningitis, but collapsed; they then operated, and the patient died. It was a grave responsibility to refrain from removing the factory of organisms threatening the dura mater, and that was the essential thing in acute mastoid operation. He said again that papers should not be brought before them as otologists unless a distinction was made between two diseases which were different clinically, bacteriologically, and therapeutically. One was a disease of bone, contiguous to the dura mater, so that the spread from the one to the other was easy and rapid; the other was an inflammation of a mucous membrane separated from the cranial cavity by two layers of periosteum and an intervening piece of bone, and all one could do was to drain that cavity.

Mr. E. MUSGRAVE WOODMAN said that they had all been told that the primary focus should be removed when consequential complications arose, and that had been their guiding point. But they had to remember that these people were very ill, their margin of safety was low. He was rather inclined to agree that in the best interests of the patient they should think again as otologists, and it might be that the question they should set themselves to consider was whether a simple drainage without eradication should be carried out.

General Discussion

Mr. C. P. WILSON said that the type of case attending a neurosurgical unit was rather different from the type which, to begin with, would come under the otologist. He had an analysis of 8 cases of otitic meningitis, not one of which had a cerebral abscess; probably cases which developed symptoms associated with cerebral abscess were more likely to go to a neurological unit. In these 8 cases he had had only 1 death—a pneumococcal case; 3 cases had shown the haemolytic streptococcus, and all had recovered. He had queried the amount of penicillin used intrathecally—as much as 50,000 units—in otitic and non-otitic cases, because he had felt it was likely to produce a local reaction with fibrous exudate, but the pathologist's opinion was that these cases often had a fibrous exudate without penicillin; the amount of exudate was not greater with penicillin, and the patients lived. Only two complications arose in this series—one a paralysis of the bladder which recovered, and the other some symptoms of *petit mal*.

Mr. L. GRAHAM BROWN said that the otologist had a little difficulty in carrying out all the complicated tests and treatments which the neurosurgeon was now making his own. He asked whether Prof. Hugh Cairns would not agree that in those cases in which brain abscess or an intracranial complication was suspected accompanying meningitis the neurosurgeon should take charge. Mr. TERENCE CAWTHORNE asked whether there was any likelihood of systemic penicillin being made a substitute for intrathecal medication. These constant lumbar punctures were a source of trouble and possibly a danger.

Mr. F. W. WATKYN-THOMAS asked whether there was any evidence that penicillin, unless administered by the intraventricular route, could actually enter the brain substance. He added that he was not quite convinced by Dr. Honor Smith's paper, and he did not think he was going to abandon the removal of a focus when there was one. Mr. H. V. FOSTER mentioned cases of otogenic meningitis which had recovered after intrathecal and systemic penicillin. In the old days one did not expect meningitis following acute otitis media to recover. The PRESIDENT summed up the discussion by saying that evidently penicillin held out the hope of helping cases which were hopeless in the past. The need for co-operation between otologists and neurosurgical units had also been demonstrated, and they were all grateful to Oxford for setting such an outstanding example.

The Neurosurgeon and Otology

Prof. HUGH CAIRNS, who replied to the discussion, said that neurosurgeons had been drawn closer to the otologists over the use of penicillin than ever before. At the risk of being tiresome he wanted to say something about the dosage of intrathecal penicillin. In the neurosurgical unit they were very much against overdosage. They thought that the standard dose intrathecally should be about 10,000 units. This might be given twice a day in the very acute phase of meningitis, but for most of the time it was sufficient to give it once a day. Excessive doses would cause trouble, such as fits, retention of urine, and other signs of damage. Furthermore, all the evidence went to show that excessive dosage was unnecessary. With the dosage recommended a concentration of penicillin in the cerebrospinal fluid would be obtained which was more than ample to destroy any of the ordinary pathogenic bacteria. Intrathecal treatment must be systematic. It was no use saying, "We will give penicillin to-day, and if the patient is a little better to-morrow we will withhold it." The shortest time for intrathecal treatment in a proved case of pathogenic meningitis was five days, and often it was desirable to go on for rather longer.

What penicillin could do prophylactically, both for infection in the mastoid and in the brain, had yet to be proved. Nobody knew whether penicillin could diffuse into the brain from the capillaries, and it was an extremely difficult problem to work at experimentally. He did not think there was any likelihood, with the present compounds, that systemic treatment would replace intrathecal.

Mr. Layton had spoken impressively about the need for distinguishing between the acute and the chronic cases, but if he would read Dr. Honor Smith's paper he would find that a distinction had in fact been made. Prof. Cairns thought that a chronic focus, where there was a collection of pus, ought to be dealt with surgically, but he was not clear whether Mr. Layton would hold his hand in any case or would just go ahead and operate on all the cases as in the old days.

The theory of immunology so far as the cerebrospinal fluid was concerned did not seem to work. Patients who got an attack of pneumococcal meningitis did not become more immune, at any rate for a long time. They might have eight or nine further attacks, though if the clinician had patience and each attack of meningitis was treated as energetically as the first, the patient would probably in the end develop some degree of immunity. Prof. Cairns concluded by saying that there was a great field for the otologist in working out precisely the degree to which penicillin would help him in the prophylaxis and cure of mastoid infection.

GYNAECOLOGICAL CASES

At a meeting of the North of England Obstetrical and Gynaecological Society held at Liverpool on March 1, Mr. J. E. STACEY, of Sheffield, described prolapse of the urethral mucosa in two sisters, aged 75 and 73 respectively. The prolapse presented as a dark plum-coloured gangrenous mass about the size of a cherry, giving rise to dysuria in one of the patients and some bleeding in the other. The protrusions were removed by diathermy and each patient made an uneventful recovery. In another case a blue firm mass about the size of a cherry which presented through the urethral orifice after a bout of pain and vesical tenesmus was found at operation to be a congenital pouch of the bladder wall. The mass reduced itself spontaneously as soon as the bladder was distended with fluid, and was easily ligatured and removed through the dilated urethra. The fourth case was that of a woman aged 43 in whom a smooth purple piece of tissue about the size of a Victoria plum was found protruding through the urinary meatus. As she had had amenorrhoea for three months her doctor thought that this mass must be a portion of placenta following an incomplete abortion and attempted to pull it away digitally. He (Mr. Stacey), after dilating the urethra still more, found that the mass was attached to the right side of the bladder in the region of the right ureteric orifice. It was tied off and cut by the sense of touch, and on removal was found to be a papilloma of the bladder, which had undergone torsion at its base, and a portion of the right ureter. The patient made an uneventful recovery, and on cystoscopic examination a few days later both ureters were seen to be secreting well, though the right ureteric orifice was about 1 cm. in diameter.

Dr. DUDLEY RACKER, of Manchester, described a case in a young girl serving in the A.T.S. of an obturator hernia containing a portion of the right Fallopian tube and the distal part of the appendix. It caused a great deal of pain in the right iliac fossa with nausea and pain down the leg. The case had been diagnosed and investigated as one of gonorrhoea with a possible spread of the infection into the Fallopian tubes. Dr. Packer said that vaginal examination revealed a mass in the region of the obturator foramen. At operation the ovary was found to be lying close to the opening of the hernial sac, and both the appendix and the right Fallopian tube were removed.

Prof. T. N. A. JEFFCOATE showed an unusual specimen of an extracervical squamous epithelioma, and Dr. HERD one of a placental chorio-angioma. Dr. R. NEWTON described a case of post-menopausal haemorrhage due to a minute granulosa-cell tumour in the ovary which had caused endometrial hyperplasia and a small endometrial polypus.

A meeting of the Chelsea Clinical Society was held at the South Kensington Hotel on Feb. 26 under the presidency of Dr. Desmond MacManus. After dinner Dr. F. Murgatroyd, F.R.C.P., delivered a lecture on "The War and Tropical Medicine" and gave a most interesting discourse upon the difficulties and the recent advances in methods of combating tropical diseases under wartime conditions, and explained how their occurrence might be likely to affect general medical practice in Great Britain.

HEALTH EDUCATION IN SCOTLAND

At the annual meeting of the Scottish Council for Health Education held in Edinburgh Mr. Andrew H. A. Murray was appointed chairman for the ensuing year, and in moving the adoption of the accounts for 1945 he, as treasurer, drew attention to the need, imperative and urgent, for an increase in funds. The retiring chairman, Bailie Violet Roberton, LL.D., who presided, said that in a very short period the council, with the whole-hearted co-operation of the local authorities, had made its name and aims known not only in the populous urban areas but in the small burghs and many of the remotest hamlets and villages of the Scottish coasts, the Highlands and Borders. She introduced the newly appointed part-time medical adviser, Dr. Alex. G. Mearns, senior lecturer and examiner in hygiene, Glasgow University.

Dr. Mearns said that one of the council's aims should be to encourage both the universities and the teachers' training colleges to take their full share in inculcating the principles of health education. The students thus taught would in due course become doctors, teachers, etc., and would be better equipped to face the difficult task of reversing the usual conception that "the customer is always right." In many health matters the "customers," he thought, were often wrong. The public must not, however, feel that they were being dictated to. Health propaganda must be persuasive and, at the same time, it must be truthful and fearless if lasting good was to be achieved.

It was announced that three summer schools would be held this year, two at St. Andrews University (June 29 to July 12 and Aug. 3 to 17) and one in Edinburgh (July 13 to 27). Dr. W. G. Clark, M.O.H. for the City of Edinburgh, said that a health week would be held in Edinburgh and Leith during the period April 28 to May 5 under, it was expected, the joint auspices of the council and the corporation. It would be, he said, an intensive effort to reach every family in the city, and he hoped a pattern and standard would be established by the capital which would inspire the other large burghs to follow suit and "go one better if they can."

Correspondence

India and Birth Control

SIR,—With probably the most devastating famine in history overshadowing India, Sir John Megaw's lecture on the health of India which you printed on March 9 is naturally of considerable interest and importance. The lecturer has the advantage of ample experience, and no one here or in India will doubt his sincerity of purpose and his humanity. The fact emerges, however, that the only remedy proposed—limitation of births—appears at the present juncture to be such a counsel of despair that you will, I trust, allow me to make certain observations on other aspects of this problem—namely, that of population.

In general, none will dispute the existence of certain laws of the increase of population, or the occasional association of such increase with a lowering of the level of nutrition. In actual practice there are so many extraneous factors involved that the consequences of such laws do not work out in the simple manner indicated, and indeed cannot be considered universally valid. There was, for example, a phenomenal increase in the population of Britain in the latter half of the nineteenth century accompanied by a marked *reduction* in the area under agriculture, due to the diversion of population to industries. There was no food shortage, but rather an increase in the wealth of the country, as the surplus food needed was of course imported, in exchange for manufactured products—as it is to this day. And yet to-day's "austerity" is such, and the man-power problem is so acute, that many have grave doubts as to the wisdom of universal birth control, and inquiries are already afoot to modify this state of affairs. How much stronger in the world the position of this country would be if the population were larger by 10 millions.

The increase of population in any country cannot now be considered as an isolated, domestic phenomenon having no relation to the outside world. There is so much exchange of raw materials, of consumer goods, and even of food between different countries that the problem cannot possibly be reduced anywhere to the classic simplicity implied by the able lecturer. Let us remember that although the Indians live in the modern world their agriculture is at present entirely prehistoric and inadequate as to the methods. Further, by improved irrigation the area under cultivation could be very substantially increased. The "outlook on life" of which Sir John Megaw complains could be changed, for better or for worse, only by a rapid industrialization of agriculture (and everything else), and not by means of wireless talks on birth control to village folk. Indeed, I doubt if any Government in power in India would be prepared to risk its neck by broadcasting such topics; and, in fact, they are not broadcast in any European countries. No European countries have so far adopted birth control as State policy, but the reverse is true of many States where it is or has been officially discouraged—e.g., France, Germany, U.S.A., U.S.S.R. Indian trade with neighbouring countries is likely to increase, and there is no reason whatever to think that it will not be to the benefit of India in the matter of food.

Our life on earth is so arranged that malnutrition and famine are not the only dangers which populations have on occasion to face. If diseases and epidemics could be controlled (and some endemic infections do *not* spare the well-nourished) there would still be war, involving much loss of life among the younger age groups, and subsequent economic distress and famine, extending to all sections of populations over wide areas. The present food situation in Europe is there for all to see, but obviously cannot be explained by population theories. The atomic bomb promises to destroy large numbers in all age groups in the next war.

I fear that politics cannot be left out of population problems either. It is no secret that nations have built up their prosperity, not by reducing their numbers, but by providing for their increased needs by foreign trade and colonization. There is the "white Australia" policy, which condemns a continent two and a half times the size of India to be cultivated by a population no larger than that of London. There are similar considerations in East and South Africa, where nevertheless Indians have helped substantially in the economic development of the country, have benefited thereby, and have as a consequence aroused jealousy. There are vast spaces waiting to be utilized, distances are becoming smaller, and the energy and resources available to science are already immense. One cannot do better than repeat the quotation used by Mr. Churchill in his famous recent speech in America: "There is enough for all. The earth is a generous mother. She will provide in plentiful abundance food for all her children if they will but cultivate her soil in justice and in peace." Incidentally, Mr. Churchill, contrary to recent trends, envisaged an increase in Britain's population to 80 millions in half a century—"spread about the world." No one can tell how and where the extra food required will be produced.

The whole subject of human fertility is as yet not perfectly understood. Considerable and intensive research in this difficult field is required before we are in possession of those factors which will enable us to decide whether or not it is possible or practicable to modify them deliberately, in a positive or negative sense. From a purely clinical point of view, I doubt whether there is a doctor with long experience, or a gynaecologist, who will deny that there is at least as much domestic unhappiness, frustration, and (particularly among women) general ill-health and neurosis caused by the widespread use of contraceptives as the theoretical benefits they are supposed to confer on society. I have questioned women closely, and there is no doubt that the existing contraceptives alter the nature of the sexual act very considerably, and that this apparently economic necessity is tolerated even though it is felt by refined natures to be repugnant. No organized team of medical men has yet carried out any research, inquiry, or experiment in this particular field (of practical birth control), and it is strange how everyone has become reconciled to the conceptions and commercial products of non-medical amateurs.

Finally, "birth control" is by no means a simple remedy in the medical sense—that is, with a specific and limited action; for by altering the sexual habits of the people it is bound to have repercussions on the social structure of a society, and indeed, in the long run, on moral outlook and behaviour. It is for this reason that I consider it a "counsel of despair," and it cannot lightly be recommended to India, which has its own highly developed system of ethics, and a social structure which has stood the test of centuries. It remains to be seen whether it will stand the test of adaptation to modern industry.—I am, etc.,

Dagenham, Essex. RASHEED AHMAD.

The Health of India

SIR,—The views (March 9, p. 343) of an "elder statesman" of the Indian health services like Sir John Megaw must be treated with respect, but they induce in me—a mere wartime "hanger-on"—profound pessimism. Indeed, it seems necessary to consider whether preventive medicine in India is worth while pending the arrival of the "new outlook" among the Indian population.

The Famine Inquiry Commission (Final Report) says: "A rise in the standard of living is the primary means of checking the rate of population growth." Sir John says: "It would be the height of folly to rely on a comforting theory based on no reliable evidence and flatly contradicted by experience in India." Leaving aside the question of evidence (which has been dealt with in some detail by the Famine Inquiry Commission), it is clear that, whether or not the theory be wholly true, it has the great merit of providing hope where otherwise little exists, and of suggesting a course of action which is sorely needed on other counts. It also justifies the Government of India in having obtained the advice of a series of expert Commissions and committees on how to increase food production and raise the standard of living. If the theory be wrong, as Sir John believes, we may as well abandon all public health activities in India until the population is induced—possibly through a formula suggested by the new Commission which Sir John proposes—to control its own reproduction rate. One wonders what line such a Commission could take. Birth-control propaganda cannot be effective unless the cost of contraception can be borne and the desire to limit families is present. Even if the question of cost were overcome, surely the desire to limit

families is dependent both on the wish to attain a higher standard of living *and on there being a real possibility of doing so by individual effort.* I would therefore suggest that Sir John is putting the cart before the horse when he emphasizes the need for a new outlook on the part of the Indians and relegates the "ambitious plans" for increasing food production in India to a short and generalized statement.

To-day in India most issues reduce themselves to political terms, at least in Indian eyes. For us in Britain it is important to realize that the cause of neither material improvement nor education can be effectively fostered by democratic means until political calm is restored and the Government receives a wide measure of popular support. How this essential state of affairs is to be brought about is up to the Indian leaders and the British Government, and I cannot pretend to know the best answer.

Some of these ideas have been elaborated in a paper which I gave recently to the Nutrition Society, in the *Proceedings* of which it will appear in due course. I shall not burden your columns further except to emphasize that the only hopeful (and practical) way of dealing with the question of health in India is, first, to increase food production and raise the standard of living generally; secondly, to work for the earliest possible political settlement; and, thirdly, to inculcate in Indians the desire for a new way of life. The last problem may be approached through a suitable Commission, as Sir John suggests; but failure to find an early solution to the first two (now that the preliminary fact-finding is virtually complete) will certainly frustrate any attempt to bring about the new outlook in which ultimate salvation lies.—I am, etc.,

Rowett Research Institute, Aberdeen. ANGUS M. THOMSON.

Dosage of Diphtheria Antitoxin

SIR,—Old residents at the Edinburgh City Hospital must have noted with some surprise the statement by Dr. James Grant (March 2, p. 309) that "such an authority as Ker (Banks, 1934) held that the administration of antitoxin in excess of 6,000 units was wasted." The fact is that this view was not attributed to Ker by Banks, who said in his presidential address to the Fever Group on Dec. 1, 1933, "In the early post-war years, when 8,000 units was suggested by the Ministry of Health as the minimum dose to be given in any case of clinical diphtheria, the late C. B. Ker vigorously protested against the waste involved in ignoring the perfectly effective dosage, in experienced hands, of 2,000 to 6,000 units for mild cases." Nor is Dr. Grant's statement of Ker's views in accord with the latter's practice, which is best summed up in the 1920 edition of his *Infectious Diseases* by the following quotation: "In severe nasopharyngeal and laryngeal cases it may be necessary to give in all 40,000 units or even more. My own largest dose has never exceeded 64,000 units. . . ." In such cases the total was reached by repeated injections of 8,000 to 10,000 units given at six- to eight-hourly intervals, and this system of dosage was adhered to by Ker up till the time of his death.—I am, etc.,

Edinburgh. ALEX. JOE.

Diphtheria Immunization

SIR,—In the abridged version of Dr. James Grant's address on "The Problems of Diphtheria" (March 2, p. 309) there seems to me an important discrepancy. Speaking of antitoxic immunity he remarks that this "can be set up and stimulated by injections of toxoid, which is the rationale of the immunization process, of the success of which the usual criterion is the conversion of a Schick-positive reaction to a negative." Again, "If there is basic antitoxin—i.e., if an antitoxin-producing mechanism already exists—the rate of production of antitoxin will be found accelerated, and this ability to mobilize antitoxin is the best defence against clinical sequels to infection."

So far so good. What he does not emphasize is the importance of *always* doing a Schick test before proclaiming "immunity." In other words, there is no justification for claiming immunity unless the verdict rests on at least one negative Schick test. In passing, be it said that a negative test does not necessarily preclude an attack of diphtheria. What is claimed—and Bousfield, among others, has already weighty evidence on this point—is that once a Schick-negative child, if it ever does get diphtheria, will not die of it.

This lack of precision is manifest in the table, showing 965 cases (61 deaths) among the "non-immunized" and 245 (1 death) among the "fully inoculated." But what does "fully inoculated" mean if not, by antithesis and implication, "immunized"? We are told that the "death" in this series received 0.1 and 0.5 ml. of A.P.T., a dosage condemned as inadequate; i.e., this patient does not really belong in this column. Moreover, all who regard the Schick test as an essential part of the process of artificial immunization know full well that certain individuals do not become Schick-negative after the ordinary course. Differences in constitution, condition, technique, and material all contribute to this phenomenon. The table as it stands testifies strongly for immunization, of which Dr. Grant is himself an able exponent. But without the confirmation supplied by the test these 245 "fully inoculated" cases tell us little save that the mortality among them is negligible. On the other hand the "anti"-fanatics will doubtless once again find in this table fresh ammunition for their campaign.—I am, etc.,

Haywards Heath, Sussex. H. LYNDHURST DUKE.

Diagnosis of Amoebiasis

SIR,—I read with great interest Surg. Lieut.-Cmdr. W. E. Kershaw's article on the diagnosis of amoebiasis (March 2, p. 305). He expresses his anxiety at the problem of amoebiasis in Europeans in the Far East with its ultimate effect on those at home. He calls it one of the major problems confronting the medical authorities in the Far East. In this connexion he does not mention one serious source of contamination likely to occur at home—ex-P.O.W.s from the Far East. I most heartily welcome his remarks as giving voice to a situation that has been a constant worry to me for the last three and a half years, during which time I have been carrying on a most disheartening struggle against amoebiasis in P.O.W.s without the proper drugs or facilities. I estimate that at least 25% of all P.O.W.s who were released in August from Siam were at any rate cyst-carriers. The tests which it has been possible to carry out during repatriation, rehabilitation, and demobilization have not been, to my mind, conclusive. I found in Siam that at least nine stool examinations were required before you could be in any degree certain that the person was cyst-negative, and that only if other suggestive symptoms were entirely absent. Oddly enough, in taking successive daily examinations the fifth and eighth days were most often the optimum.

Europeans from many countries at home and abroad were with me in Siam, and their views were widely different. While many agreed with me as to the danger of losing track of cyst-carriers, others were lukewarm and some went so far as to postulate that a high-percentage cyst-carrying community was not of necessity anything to worry about unduly in hygienic surroundings. In support of this they quoted figures of Manson-Bahr showing carrier rates in various communities and classes, pointing out that there are considerable numbers of cyst-carriers in the U.K. who have no symptoms and apparently never had the disease. The answer to this is that it has been neither proved nor disproved that different strains of *Entamoeba histolytica* may have different virulence. Some of the cases in Siam were of appalling severity and virulence barely hinted at in the average textbook, while others were of different grades of severity.

Introduction of numerous cyst-carriers into European communities at home especially, and also abroad, may well be fraught with eventual unfortunate results as outlined by Surg. Lieut.-Cmdr. Kershaw, and I welcome his article drawing attention to these dangers.—I am, etc.,

L. R. S. MACFARLANE,
Command Laboratory, York. Lieut.-Col., R.A.M.C.

SIR,—One should not, perhaps, at such a distance, venture to criticize the findings of Surg. Lieut.-Cmdr. W. E. Kershaw, whose paper entitled "The Diagnosis of Amoebiasis" appears in the *Journal* of March 2 (p. 305), but in view of the number of cases of what appear to be bowel neurosis returning to this country from over-seas, with a history of having had amoebiasis, such criticism may not be entirely out of place.

It is true, of course, that cases of amoebiasis presenting atypically (for example, as a right-sided pleural effusion) are sometimes missed, occasionally with disastrous results, and that a sharp watch should be kept for such cases; but one of the most unsatisfactory aspects of amoebic liver infection is that there may be no history of any previous noteworthy bowel disturbance, or even any impairment of general health prior to the onset of symptoms originating from a liver abscess. Recorded amoebiasis has reached local epidemic proportions on several occasions. It occurred, I believe, in India both before and during the 1914–18 war, and occurred in Malta and in parts of the Middle East in this war. I had considerable personal experience of the occasion when, in Malta in 1942, an epidemic of amoebiasis had begun to reach alarming proportions only to die out as rapidly as it had begun, following the dissemination of some expert instruction in the art of differentiating the various protozoa which infect the human alimentary tract. It may be impertinent to suggest that the same thing has been occurring in Ceylon, but the following points might nevertheless be tentatively put forward.

1. The route and mode of infection in amoebic and bacillary (acute, subacute, and chronic) dysentery are the same, but the latter infections are very much more common, and when the incidence of amoebic dysentery exceeds 10% of the whole it is time to suspect diagnostic errors.

2. The diagnosis of amoebic dysentery is based on the finding in the stools of actively motile specimens of the *Entamoeba histolytica* containing ingested red cells. Many, some of them quite lyrical, accounts of the sigmoidoscopic appearances exist, but if ulcers are present the amoebae can be demonstrated n the stools following a saline aperient, and they can often be found when the ulceration is beyond the reach of even the most practised sigmoidoscopist. The diagnosis of caecal and of hepatic amoebiasis is made with much more difficulty on symptoms and on clinical and radiological signs, and cysts can usually be found to confirm the diagnosis. A valuable sign may be a marked increase in the number of cysts passed, following one or two doses of emetine.

3. The history of slight impairment of general health and occasional slight irregularity of bowel habit, obtained by direct questioning of people found to be passing cysts, the proportion of whom in any populace seems to vary widely with the skill and perseverance of the investigator, is not really valid evidence unless compared with the result of such questioning in those who are not passing cysts.

4. The differentiation of the vegetative and cystic forms of the various amoebae and of macrophage cells is a matter of some difficulty. Indeed, I know of no method of acquiring the ability to differentiate them with confidence except by fairly prolonged and personal "showing how" by an expert on the subject; and I recall that, whereas before receiving such instruction I thought myself fully capable of recognizing these animals, it took considerable time and much patience on the part of my instructor before I really began to know what I was looking at.—I am, etc.,

J. J. KEMPTON,
Late Medical Specialist, R.A.M.C.

Wokingham.

Treatment of Amoebiasis

SIR,—Major C. F. J. Cropper (March 9, p. 366) expresses the hope that "more authoritative voices . . will be raised in protest against the astonishingly ill-informed letter of Dr. E. Snell." I am reluctant to prolong an acrimonious correspondence, but I cannot refrain from expressing a protest that such an astonishingly discourteous letter should have appeared in your *Journal*. Apart from the fact that Dr. Snell stated that he had been a prisoner of war and, therefore, presumably not in a position to treat amoebiasis, or any other disease, by the most up-to-date methods, I am not ashamed to confess that his ill-informed views are shared by me, and, I imagine, by many other physicians experienced in tropical diseases.

It is to be hoped that the introduction of diodoquin and penicillin represents an advance in treatment, but to date experience is insufficient to justify the didactic opinions expressed by Major Cropper.—I am, etc.,

T. W. PRESTON.

South Croydon.

Ocular Signs in the Prisoner of War from the Far East

SIR,—Major G. C. Dansey-Browning's letter (Feb. 23, p. 288) brings up again the question of the aetiology of the optic atrophy that is found to be present in the ex-P.O.W.s from the Far East.

In May, 1945, I examined in a base hospital in India 33 B.O.R.s and one British officer ex-P.O.W.s who were complaining of loss of vision. These were from the first batch of 315 P.O.W.s who had been released under four weeks previously from Rangoon jail. I found loss of vision to be associated with optic atrophy in 12 of these. One case exhibited nystagmus. In none was there any ocular palsy. As these men were retained only a few days on their way to the U.K. visual field examination and scotometry were unsatisfactory. I am delighted that their subsequent examination was completed in detail in England.

In my report on these cases of that month to G.H.Q. I stated that I considered the optic atrophy to be secondary to retrobulbar neuritis caused by vitamin B_1 deficiency. But Lieut.-Col. Garland, who was my colleague, suggested, as Major Dansey-Browning has quoted, that it might be due to vitamin A deficiency. It was remarkable that, although there did not appear to be any vitamin A in these prisoners' diet, night blindness was not universal, and some of those showing well-marked atrophy had not suffered from it. The prognosis of these cases is not universally bad. I have known one civilian doctor who showed severe optic atrophy improve in vision from "barely able to read newspaper headings" to J.2 in under two months from date of release.

Although I saw no trachoma in Europeans, either in this first batch of ex-P.O.W.s or in the many that I subsequently examined, it was a serious complication in Indian troops. Many of these had attacks of active trachoma while P.O.W.s, and, in the total absence of treatment, were released with gross corneal scarring. In one, the vision was reduced to perception of light in each eye.—I am, etc.,

L. B. SOMERVILLE-LARGE.

Palmerstown, Co. Dublin.

The Cephalin Flocculation Test in Malaria

SIR,—When I published my experiences of the cephalin-cholesterol flocculation reaction as a test of hepatic function (Dick, 1945) I drew attention to the fact that this test was negative in healthy controls but positive in a small percentage (7.7) of those suffering from various disorders, not primarily hepatic, in which other liver efficiency tests revealed no disordered function. Two such patients suffered from malaria, and the reaction became negative subsequent to antimalarial therapy. I read with interest Dr. Makari's article of Feb. 23, and I should like to add that I have carried out this test in many patients suffering from malaria, and without exception it has been strongly positive in the presence of an active infection. The cephalin flocculation test is so easily carried out, but its value has not yet been generally recognized. I would agree with Dr. Makari that it is most useful as "an index of the activity of malaria parasites in the host." Care must, however, be taken in the interpretation of the test at the onset of recognizable symptoms which might be due either to malaria or to infective hepatitis in the pre-icteric stage, but the E.S.R. as shown by Wood (1945) proves helpful in such cases, as it is invariably raised in malaria but not in the early stages of infective hepatitis.

I would add that I have received from the Wilson Laboratories Ltd. in Chicago, U.S.A., a cephalin-cholesterol mixture which I have tried out and find entirely satisfactory.—I am, etc.,

ARCHIBALD DICK.

Inverness.

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The Incision for Appendicectomy

SIR,—The controversy McBurney's *versus* Battle's incision for appendicectomy is heavily weighted with experience and tradition on both sides. Certain schools exist which hold rigidly to one incision to the exclusion of the other, and indeed of all other incisions. Is it not possible to separate cases into groups for which each incision has particular advantages?

In the first place the interim appendix and the acutely inflamed appendix lying conveniently in the right iliac fossa can obviously be conveniently removed through either incision. Both are excellent. Most of the trouble from appendicectomy, however, in my opinion, follows the removal of the difficult, adherent, acutely inflamed, and perforated appendix. If such an appendix lies in the paracolic gutter the McBurney or a muscle-cutting incision has the advantage of being immediately over the appendix; of allowing its removal from the flank without interference with the central part of the peritoneal cavity; and of allowing the insertion of a drain which is in contact with no other viscus than the caecum. A drain like this is unlikely, therefore, to cause adhesions other than between the caecum and the abdominal wall. If such an appendix lies at the brim of the pelvis it can again be removed equally well through either of the two incisions. If its site has to be drained, however, a drain through a Battle's incision must necessarily lie in contact with coils of ileum. Through McBurney's incision a drain may be placed to lie between only the caecum and the abdominal wall. Dangerous adhesions round the ileum are, therefore, less likely.

Finally, if an adherent, perforated appendix lies at the bottom of the pelvis we should be able to diagnose its site before operation and to act accordingly. The McBurney incision here has little in its favour, involving extension, retraction, possible injury to nerves, and trauma. Similarly a Battle's incision requires downward and inward extension, and strong retraction with possible injury to nerves, which its designer so admirably avoided. In such cases an incision through the midline or through the inner border of the right lower rectus has surely much in its favour.

I venture to suggest that it is sound teaching to make every effort to diagnose the site of the acutely inflamed appendix before operation and to vary the type of incision accordingly.—I am, etc.,

Southend General Hospital. ANDREW MONRO.

Physical Therapy in Mental Disorder

SIR,—Surely the real proof of the efficacy of physical treatment will be the percentage of recoveries on all admissions to mental institutions. It is not always easy to decide whether a discharged patient should be regarded as "recovered" or "relieved," or "unrelieved" or "not improved," and the personal equations may cause considerable differences in the returns from individual hospitals, but taken *en masse* in the Board of Control reports a high degree of accuracy must be assumed. In that for 1921 the recovery rate on total direct admissions was 32.52% (males 28.08, females 36.26). In county and borough mental hospitals it was 31.82%, in registered hospitals 44.89, in licensed houses 36.32. This rate was practically the same for the decade to 1920. In the report for 1939 the rate in county and borough mental hospitals was 33.7% (males 31.4, females 35.5). The increased male recovery rate must be due, I consider, to a diminution of admissions of general paralytics, as in 1920 they constituted 16.9% of the male admissions (2.9% female). By 1939 cardiazol and insulin treatment had been given in many institutions, and can hardly be said to have influenced the recovery rate, as shown by the female percentage. Of recent years, owing to paper economy, the reports have not been distributed, but as many cases must have been treated, at first at all events, in Service hospitals, it may be a year or two before they can be accurately compared with the earlier returns.

In assessing recovery rates for different periods various factors have to be considered. A good many years ago many cases of recent alcoholic psychoses were admitted, and these tended to increase the number of recoveries, just as the many paralytics tended to lower the number. Indeed, the late Sir Thomas Clouston estimated alcohol to be a causative factor in 26% of his admissions to Morningside—probably four times as much as the present rate. Further, the death rate has steadily decreased.

As regards the efficacy of convulsive therapy, naturally the question of diagnosis is important. Do those who claim success in cases of schizophrenia regard this affection as identical with Kraepelin's conception of dementia praecox, or do they label any case which they consider of the schizoid type as schizophrenia? I am sceptical of the recovery of any real dementia praecox case by convulsive or any other therapy. Is a reasonable time given for the chance of recovery in a case of recent onset by ordinary means? In a London Command hospital for psychotic officers, during and after the 1914–18 war, I saw quite a number of cases, sent in as dementia praecox, who recovered, and usually proved to be exhaustion psychoses. The empirical nature of convulsive therapy is of course unsatisfactory. In June, 1938, Drs. Rees Thomas and Isabel Wilson, Medical Commissioners of the Board of Control, published a report on the treatment of schizophrenia by cardiazol and insulin. They gave no fewer than eleven theories as to the mechanism of improvement. I will quote only the eleventh—psychological stimulus or help! A number of years ago focal sepsis was considered an important cause of mental illness, and much work was done by Birmingham alienists in regard to sinusitis, and success claimed, but their results were not confirmed by later observers. I remember being present at a discussion on focal sepsis in the Mental Section of a B.M.A. Meeting in Edinburgh, when one speaker declared the recoveries by treatment of such were just the cases that would have recovered in any case, and his remarks were applauded.

Will the same one day be said of convulsive therapy? We certainly are as yet unable to give a verdict. The many experienced alienists who give this treatment would not persist with it if they were not convinced of its value. Some consider it more useful in involution cases and in the affective psychoses than in schizophrenia. I think that in the course of a year or two a careful evaluation of the Board of Control recovery rate statistics should settle the matter. Mere figures are not sufficient. It is likely that with increased longevity and a lower birth rate the proportion of senile cases will increase. Alcoholic cases should continue to diminish. General paralysis may do so for a time, but might rise later due to war incidence of syphilis.

Another unsatisfactory feature is the lack of knowledge of the pathology of early schizophrenia and of other states. Various changes have been described in the brain and in the sex and other glands, only to be refuted later, and perhaps put down to artefact, mode of death, and so on. I think more histopathological work should be done, as in the time of Bevan Lewis, Mott, and Shaw Bolton. The last-mentioned found micrometric deficiency in depth of the layer of small pyramids.

I believe schizophrenia, and probably most cases of insanity, to be due to some original inborn weakness, and in fact to be deficiency diseases; and it is not surprising the recovery rate should be one-third of the admissions. It is satisfactory it is so high.—I am, etc.,

Hastings. HARVEY BAIRD.

Leucotomy in Post-encephalitic Conduct Disorder

SIR,—I have read with interest Dr. F. T. Thorpe's article on prefrontal leucotomy in treatment of post-encephalitic conduct disorder (March 2, p. 312), and, by adding to Dr. Thorpe's two cases a very similar case from Shenley, would like to draw further attention to this arresting account of how surgery may be instrumental in modifying psychotic behaviour.

A woman aged 35 was admitted to hospital in September, 1944, as a case of post-encephalitic Parkinsonism with mental disorder. The earlier history was inadequate because of unreliable and scanty data from the relatives, and there was no record of an attack of encephalitis lethargica. At the age of 17 she attempted suicide by cutting her throat. Soon after her marriage at the age of 23 her disposition became erratic and moody and she became abnormally acquisitive.

On admission the patient showed a mask-like facies, a festinant gait, and paresis of the right arm and leg with spasticity and cog-wheel rigidity. Salivation was excessive. Her general attitude was simple and childish, but there was evidence of a cunning, scheming tendency towards the nursing staff. About a month after admission she began to make impulsive dashes for the window and would succeed in her attempts to break through the glass almost every week. Frequently there were scalp wounds which needed suturing, but there was never any serious head injury. Nine months after admission the patient began to complain of hallucinations: "her husband's voice" would urge her to rush to the window, and she would often give the medical staff warning when these hallucinations were most persistent. She also became deluded that there was something wrong with her bowels, being preoccupied with the idea that they were "stopped up."

Prefrontal leucotomy was performed by Mr. T. G. I. James in November, 1945. An incision was made on either side, 6 cm. above the zygoma and 3 cm. behind the orbital margin. The leucotomy needle passed just anterior to the anterior horn of the lateral ventricle and 1 cm. short of the medial aspect of either cerebral hemisphere. The operation was performed under cyclopropane anaesthesia. As soon as the patient regained consciousness a marked improvement was noted. She was calmly rational and, although "the voices" were still present, there was no longer any need to pay attention to them. There were slight headache and some vomiting for a day after the operation, also incontinence of urine. One week later there was continued improvement and the hallucinations had become insignificant; on the sixth post-operative day incontinence had ceased. The patient had become interested in reading. Two weeks after the operation she was able to go for short walks in the hospital grounds, and was showing co-operation and even initiative in assisting the nursing staff in the ward. She was discharged from hospital on Jan. 13, 1946, having made no impulsive attempt to break a window during the eight weeks following the operation.

During the past two months the initial improvement has been maintained. The patient is active and mentally alert, being well able to work at home and go shopping on her own. The physical signs of Parkinsonism are less pronounced than before the operation and there is a definite gain in weight. Unfortunately the onset of double incontinence since the patient's discharge from hospital raised a temporary barrier to useful employment outside the home, but it is hoped that there will be opportunity for rehabilitation towards a more independent way of life in the not too distant future.—I am, etc.,

Shenley Hospital. E. S. LOWER.

Fractured Patella

SIR,—Concerning the case reports quoted by Mr. R. Brooke (Feb. 16, p. 231) on his end-results of the operation of removal of the patella, although I published in the *Journal* a small series of cases soon after Mr. Brooke's original work (1938, **1**, 383) extolling the virtues of this operation, I am afraid that time has modified my early optimism. I now share the more conservative outlook put forward by Sir Max Page as to when the patella should be removed.

To secure perfect function of the knee-joint after this operation needs: (1) first-class surgical repair work; (2) prolonged after-care and enthusiasm; (3) a suitable patient. I only rarely secure all these three concepts, and, judging from the cases exhibited at medical meetings, other surgeons seem to find it likewise. Even at the last British Orthopaedic Association clinical show an A.T.S. girl was shown who had her patella removed by a first-class team of surgeons together with the help of a first-class rehabilitation centre; yet in this apparently ideal case the girl could not fully extend the knee, nor had she good power in getting up from a kneeling position.

To guard against this lack of full extension, I myself, after removing the patella, endeavour to take up all slack in the quadriceps mechanism by overlapping the aponeurosis, as in the Mayo umbilical hernia operation; keep on an Esmarch bandage for a couple of days to prevent bleeding of the torn quadriceps clotting and binding it down to the capsule and forming adhesions; and I get the patient weight-bearing after a few days, guarding my suturing by providing a back slab of plaster; thus early restoration of quadriceps tone is secured. In spite of all these measures my cases of removal of the patella rarely secure more than 80% full function or power in the knee. Mr. Brooke must have some magic secret to secure his perfect results.—I am, etc.,

London, W.1. G. O. TIPPETT.

"Eumydrin" Treatment of Vomiting in Infants

SIR,—I am prompted to write on the subject of the "eumydrin" (methyl atropine nitrate) treatment of vomiting in the young infant. Within the last two years I have been meeting an increasing number of cases in which the early use of this drug has caused considerable difficulty in making a diagnosis and prescribing treatment.

Paediatric practice is somewhat divided on the question of operation as opposed to medical treatment in pyloric stenosis of infancy, and since the general practitioner may not see sufficient cases to be able to form his own opinion his position is a difficult one. In my view both methods have a definite place, though I believe that surgery is advisable in severe cases and should be undertaken with the least possible delay after relief of dehydration. Operation should also be performed when there is not a really good response to the drug after two or three days' trial and immediately an infant shows signs of "hanging fire" during medical treatment, so that it is not allowed to deteriorate. Furthermore, as the chief danger to the baby after operation is the infection which it may acquire even in the best of institutions, I believe that the main value of "eumydrin" lies in the fact that some of these cases may be satisfactorily nursed in their own homes. Prolonged medical treatment of these delicate infants in an institution is surely wrong unless we have the ideal conditions for admission of mother and baby and for the mother herself to undertake the nursing under supervision.

My plea is for the diagnosis to be established beyond reasonable doubt before "eumydrin" is begun. I am now meeting cases which present a very difficult problem. Typically the story is this. An infant in the first month of life has begun to vomit and the vomiting is occasionally projectile. Visible peristalsis may or may not have been seen but no tumour has been palpated. "Eumydrin" treatment has been started, and for a week the vomiting has decreased and the infant has gained a little weight. There may then have been one to two weeks of little or no progress followed by a return of vomiting, though this is no longer projectile; there has been considerable deterioration in the infant's condition and the stools may be frequent and undigested. When asked to see the baby at this stage one may find parenteral infection or faulty feeding as a cause of the condition, but one may be quite unable to decide whether pyloric stenosis is, or even has been, present. No peristalsis is to be seen and no tumour palpated. One may stop the "eumydrin" for forty-eight hours in the hope of being able to establish the diagnosis, but the infant's condition deteriorates further. As one is still uncertain one is forced either to resort to the drug again and hope to keep the infant alive with parenteral fluid, etc., or to ask the surgeon to explore in the absence of a definite diagnosis and on a bad surgical risk.

Should the family doctor be certain of the diagnosis "eumydrin" may be started and, in some cases, the whole course of treatment may be carried out safely and satisfactorily in the baby's home. There must, however, be facilities available for the immediate transfer to a surgeon if progress is arrested even for a few days, and the practitioner must be acquainted with the fact that drug treatment needs to be continued long after the cessation of symptoms. If there is the slightest doubt as to the diagnosis then the surgeon or physician who would ultimately have the responsibility of the case should personally examine it before "eumydrin" is begun, and, where possible, this first examination should be made before admission to hospital.—I am, etc.,

Oxford. VICTORIA SMALLPEICE.

Keratoconjunctivitis

SIR,—I have been much interested in the remarks of Drs. W. J. B. Riddell and I. C. Michaelson (Jan. 5, p. 28) in connexion with my article on keratoconjunctivitis. Virus keratoconjunctivitis is, of course, a different disease from the one described in my paper.

It seems that the nomenclature of keratoconjunctivitis could be improved. I do not know if a label has ever been given to the type of case that I described, but I suggest "marginal keratoconjunctivitis," as the lesions are always close to the limbus; "keratoconjunctivitis" without a qualifying adjective is not descriptive enough.—I am, etc.,

48 General Hospital, B.T.A. R. J. BUXTON.

"Deck Ankles"

SIR,—I cannot agree with Dr. K. Zacopoulos's conclusions (March 2, p. 322) that traveller's oedema and "deck ankles" are the same. Reference to my investigations as reported in the *Journal of the R.A.M.C.* for December, 1942 (of which the *A.M.D. Bulletin*, No. 21, para. 150, is an extract), will show that the latter is accompanied by inflammatory changes, while the former is "without further signs of inflammation."

A form of oedema in travellers by sea caused by inactivity was described in the *British Medical Journal* in 1943 (June 5, p. 708) by a ship surgeon, who concluded that it was caused by sitting for long periods in deck chairs. I have discussed the aetiology of "deck ankles" with several M.O.s who had cases on troopships, and they are all agreed on the traumatic factor in this condition.—I am, etc.,

Kidderminster. W. F. L. FAVA.

Local Cod-liver Oil for Colds

SIR,—In the *Journal* of Feb. 15, 1941 (p. 262), Dr. W. Pridham-Wippell wrote of his successful use of pure cod-liver oil for relief of the common cold. When I got to hear of it I was surgeon with the North Atlantic convoys and adopted his method at once, and for the past five years in many parts of the world, at sea and on shore, have continued it almost to the exclusion of all other treatment. The results have been excellent. In approximately 300 consecutive cases of which close track could be kept 7 out of every 10 treated in the first two days of symptoms cleared up entirely within twenty-four hours. Colds neglected in the early stages took longer to respond.

The method used is to have the patient lying on a couch or on the ground, no pillow, or one just under the neck, and the head well back. An average of one to two teaspoonfuls of cod-liver oil is injected down each nostril, using any convenient syringe of the glycerin type, or a 10-ml. glass barrel and plunger of the Record pattern. Rubber bulbs are best avoided as the oil quickly destroys rubber. The oil, partly absorbed as it passes over the turbinates, runs back over the adenoid tissue to the back of the throat, where surplus not absorbed is just swallowed. Some people are nauseated by it, but soon get over their objection when they realize the amazing relief it brings. The Service personnel soon learned to come regularly at the first sign of a cold. One application was then usually enough, but in more advanced cases two or three days' treatment twice daily might be needed, while heavy, well-established colds did not readily respond, owing probably to mucous secretion preventing the oil coming in close contact with the membranes. Care should be taken that old rancid oil is not used, as the application is then painful to the delicate tissues. I had recently to condemn many gallons of hospital stock for this reason, and found a welfare clinic issuing equally bad oil to its babies.

The rationale of the treatment would appear to be that when the turbinate mucous membrane gets unusually dry and lacking in vitality, colds readily get a hold. Cod-liver oil provides essential vitamins A and D, not to do any direct germ-killing but to nourish the membrane sufficiently to allow it to do its own killing. It is often found that with a very dry mucosa the first application to each nostril is absorbed completely, as though by blotting-paper, before it can reach the back of the throat.

I have extended the cod-liver-oil method to cases of sinusitis on the basis of clearing up nasal foci of infection, and results have been good in many cases. The whole body benefits amazingly from the absorption of the oil, and to a much greater degree than with the usual oral administration, cases such as bronchitis responding directly. I have applied the above treatment to myself over the past five years and have been almost trouble-free where colds are concerned; previously it was a different story.

I am glad to have the chance of reporting my own experience of Dr. Pridham-Wippell's method, as I have not so far found any other doctor, either at home or over-seas, who has used it since it was first published. I never go anywhere in my travels now without cod-liver oil in my kit.—I am, etc.,

Dundee. HARRY R. LILLIE.

Myringotomy and Paracentesis

SIR,—May I reply to my friend Dr. T. B. Jobson's letter (Feb. 23). He reprimands me for referring to myringotomy as "cutting the drum." The drum, he says, is a cavity, the tympanum. The first "ear" book I opened after reading this happened to be the *Treatment of Chronic Deafness*, by Dr. Cathcart, consulting surgeon to the Throat Hospital, Golden Square, and late member of the Special Aural Board, Ministry of Pensions. On page 8 he speaks of "the external auditory meatus, which is closed at its inner end by the tympanic membrane or drum, separating it from the tympanic cavity." A number of other otological writers use the word "drum" as synonymous with the drum-head and tympanic membrane. Some of them speak of incising the drum. I will not bother you with the references.

The *Oxford Dictionary* defines the drum as a cavity, and Haliburton's *Physiology* (1923) says on page 829, "The middle ear, or tympanum or drum, is separated by the membrana tympani from the external auditory meatus. It is a cavity, etc." On the other hand Starling's *Physiology* (1926, p. 481) states, "At the junction with the meatus is a special bony ring to which is attached a thin diaphragm, the membrana tympani (or drum), which completely closes the orifice." Perhaps the *Encyclopaedia Britannica* (1929) gives the fairest definition, which is: "Drum: the word is used of the tympanum or cylindrically shaped middle ear and specially of the membrane that closes the external auditory meatus."

But need my friend carp at a word? He says that he has "little Latin and less Greek." Some 300 years ago a poet laureate wrote, "Thou hadst small Latin and less Greek."—I am, etc.,

Guildford. J. K. MILLIGAN.

Homosexuality

SIR,—The correspondence regarding homosexuality has been of great interest to me. I have been fortunate enough to see many hundreds of patients suffering from sexual abnormality, a large proportion of whom were homosexuals. I think that I can claim, therefore, to have had experience at least as wide as any in England. Perhaps you will permit me to add my comments on this matter.

First with regard to causation there is evidence that the endocrine element is important, though not a basic cause. For example, in adrenogenital virilism there may be a concomitant homosexuality which disappears after adrenalectomy (as was pointed out in Broster's *Adrenal Cortex and Intersexuality*, Chapman and Hall). Also some homosexuals, though only a few, have glandular dystrophies—e.g., Oscar Wilde was excessively fat and from photographs appears eunuchoid. Again, Terman found that glandular development was delayed in intellectual boys, and many homosexuals are of this type. From the psychological point of view the suggested causation of the parents' wanting a girl and so educating the boy to be feminine in my experience never occurs. This is shown by the fact that Broster and I have had cases of pseudo-hermaphroditism where children have been brought up entirely as girls (including the dress, etc.) but have presented a masculine psyche. Microscopy of the gonads after operation has shown that they were really males. The true factor, as your correspondent Dr. Gilsenan points out, is in the home circumstances. The parent of the same sex as the patient is antipathetic to him. This is my almost invariable finding. This leads to the patient failing to mould himself upon this parent, and instead he unconsciously moulds his mind on (in psychological terminology, "introjects" or "identifies" himself with) the parent of the opposite sex. This occurs from earliest childhood, and hence the idea of being "born homosexual" which many patients elaborate. The result is that the man acquires feminine traits and is capable of loving only those of the same sex. One can see this strongly in those educated in an entirely feminine environment, and perhaps the homosexuality of the East may be the result of educating the boys in the harem until puberty.

No doubt there are other factors, such as assaults at puberty and so on, which tilt the scale. With regard to those correspondents who find no traumatic results to this I think that probably their optimism is due to lack of experience. I have several times found assaults at puberty to be important in causation, and in any case the victims often feel degraded, inferior, and unhappy for the rest of their lives. I heard only this week of a man who committed suicide after a life-long sense of degradation due to an assault by another man many years previously.

With regard to treatment I have found, as your other correspondents, that psychotherapy is possible only when there is a strong desire to be cured. When this is present I have managed to cure some cases in a few months, but others take as long as two years' hard work, and a large number, of course, are incurable. The difficulty often is, as I pointed out in my monograph, that the patient builds a homosexual environment;

does a feminine type of work such as dress designing; has homosexual friends; even wears feminine underwear, and so on. One must reconstruct his whole life to cure him.

The effect of imprisonment on homosexuals is socially important. I have seen many patients who have been imprisoned but have never seen one who has had any form of psychotherapy by the prison doctor: perhaps those who have had it have been cured—but I wonder. In my own experience they have all been made worse by incarceration. This also is the finding of Fishman (*Sex in Prison*, National Library Press, U.S.A.), Healy, and others. The animal experiments of Jenkins (Genetic Psychological Monographs, **3**, 457) suggest that imprisonment and seclusion from those of the opposite sex will invariably lead to increase of perversion, and so the final result of incarceration endangers and does not protect the public. Surely it is time that some form of psychosexual institute was founded in London so that this group of illnesses could be studied and treated. I am sure that most public-spirited psychiatrists would lend their help to its foundation and establishment.

In conclusion might one suggest to those who are so indignant that there are such things as perversions that no physician should find a disease "foul," "revolting," and so on, and obtain satisfaction in calling those who have it abusive names. Cholera, syphilis, and lupus are all horrible conditions, yet we try to show the sufferers some little humanity. When one sees a pervert should not one say, as Isaac Newton said of the reeling drunkard, "There but for the grace of God go I"?—I am, etc.,

London, W.1. CLIFFORD ALLEN.

SIR,—Dr. John J. Fitzpatrick (March 9, p. 368) and Dr. W. Lumley (p. 369) are surprised that the "victim" of the homosexual does not always suffer a psychological trauma. If they re-read my letter (Feb. 23, p. 289) they will note that I used the words: "To protect a youth from such an experience is very important; but the normal boy will not be blighted for life if he is unfortunate enough to have been on terms of sexual intimacy with a homosexual man." The significant word of course is "normal." The boy who is not normal and who has homosexual tendencies, psychoneurotic traits, or other disability will almost certainly be harmed by the experience. The normal boy, on the other hand, even though he acquiesced at the time and later regrets the experience, is in a different position; his memory of the affair remains at a conscious level, an adjustment has been made to it, and it has not led to pathological repression and mental conflict. Dr. Lumley presumably thinks that every person—boy, man, girl, or woman—who has indulged the sexual appetite in company with a homosexual suffers a grievous and lasting injury. My observations do not confirm this view. It would be interesting to know on what theoretical basis and clinical knowledge it rests.

Dr. Lumley infers, unjustifiably, that I regard the homosexual assault with complacency. For reasons which may be clear to him, if not to others, he considers it pertinent to ask if I have sons of my own. The answer is Yes. He is shocked by the statement that "there are other factors in such relationships; and that sexual activity may play a minor part in a friendship which often has in it much of value." Homosexual activity, involving physical contact between a man and a boy, is always objectionable. "To protect a youth from such an experience is very important"—if I may quote my previous letter for the second time. But to conclude that every friendship between a homosexual man and a boy, even though it may have been soiled by a manifest sexual act, has in it nothing of value is to be misinformed of the facts. Many homosexual men have done magnificent public and private work for boys and have never indulged in any physical act of homosexuality. Other homosexuals have done equally good work, but it has been clouded by some lapse. Not every homosexual is the monster Dr. Lumley believes him to be. Dr. Lumley is comforted to know "that the boys of Edinburgh are safe for fourteen years." The sentence, in this case, was not for fourteen years, but for a much shorter period. From reading the medical and other evidence given at this trial it seems clear that the public work among boys of the (now) prisoner was valued over many years by responsible people. And the same is true of many (though certainly not of all) homosexuals.

A main issue in this correspondence is whether the homosexual should be treated as a criminal or in some other way. Clear thinking, free from emotional preoccupations and based on observation, is essential.—I am, etc.,

London, W.1. E. A. BENNET.

SIR,—You are to be congratulated on opening the columns of the *Journal* to a discussion of homosexuality. It is a topic that badly needs ventilation—in common with a good many other sex problems. As the subject is one in which comprehensive statistical material is not easy to obtain, individual observations on any aspect are to be welcomed.

The views put forward by Dr. E. A. Bennet (Feb. 23) on the effect of homosexual seduction on young people are not held by him alone, and to describe them, as Dr. W. Lumley does (March 9), as "obscene balderdash" is not only offensive but out of place in a presumably scientific discussion and outmoded by 30 years or so. Instead of emotional thinking, if Dr. Lumley has any evidence to the contrary let him bring it forth.

Rosanoff, for example, writes: "As to other early conditionings, such as seduction by older boys or by homosexual men, the evidence of their effectiveness is more largely negative than positive. It seems as difficult to turn a heterosexual boy homosexual as to accomplish the opposite feat; although, of course, it is an easy enough matter to seduce a child sexually along almost any direction. Cases of seduction can be gathered literally by the thousand; but such evidence as is available would seem to indicate that such seduction can only be of lasting effect if its direction corresponds with the inherent sexual tendencies of the subject" (*Manual of Psychiatry*, 7th edition, 1938, p. 556). What I consider should be added is that the experience is liable to produce a conflict which contributes to the development of a neurosis in later life. The same writer further maintains: "A homosexual component constitutes an integral part of the sexual make-up of almost all, if not quite all, individuals—perhaps the total absence, or unusual lack, of a homosexual component is as abnormal and, in its special way, as handicapping as is an unusually large such component" (ibid., p. 554). Obviously a statement likely to arouse a good deal of discussion, which should be very helpful if conducted on rational lines.—I am, etc.,

London, W.1. FREDERICK DILLON.

SIR,—The attitude of your correspondents has been characterized by either aggressive denunciation of a harsh sentence and sentimental impotence in regard to the general problem of homosexuality, or a marked hostility towards an enemy of society without consideration for the medical aspects of the case.

The suggestion that many homosexuals can be treated successfully is highly optimistic. The constitutional homosexual is incurable, and therapy is a complete waste of time except in so far as it may remove or relieve concomitant neurotic features. In other words, treatment may convert an unhappy homosexual into a happy or less unhappy one, but will not affect the homosexual constitution of the patient. But, even if therapeutic optimism were justifiable, the legal aspects of homosexuality must still be considered. The law is concerned with antisocial acts and the protection of the public. Medicine is solely concerned with the treatment of the patient. The two aspects must not be confused. The obvious answer to the problem is segregation and treatment.

It is unfortunate that one medical man should regard homosexuality as an "ugly vice" and that another should advise "castration as a cure in the worst cases." The attitude of the former is unlikely to advance scientific progress or enable him to deal sympathetically with any of his patients who may happen to be victims of sexual inversion. "The admirable remedy of castration" is probably not disregarded "because medicine and law are ignorant," but for the reason that such treatment would be most likely to accentuate passive tendencies which are innate in most homosexuals. The persistent homosexual seducer of our youths must be segregated, permanently if necessary, but the first offender should be regarded as a psychiatric case and remanded for appropriate treatment.

Acrimonious diatribes and the expression of violent prejudices will neither stimulate our legislators into changing the

law, encourage the wretched homosexual to seek treatment, nor increase respect for the medical profession. Besides, some of your contributors should realize that their vitriolic rhetoric in the denunciation of homosexual practices represents a violent repudiation of their own repressed homosexual tendencies.—We are, etc.,

ELLIS STUNGO.
London, W.1. EUSTACE CHESSER.

SIR,—As a senior student at a large teaching hospital I find that the attitude of my contemporaries towards homosexuality varies quite considerably. Some are naturally biased, while others regard it with an open mind ; but all, I think, realize that a sympathetic understanding of the subject is of the utmost importance.

But is an entirely satisfactory solution to the problem to be found in a closer collaboration between the medical and legal professions, or in either profession individually? They deal primarily with what one might term the "mature" homosexual. There would appear to be opportunities for prevention, thus alleviating the necessity for cure. A substantial proportion of homosexuals owe their condition to a number of various influences during their schooldays. These influences are liable to be particularly strong at a boarding school. School teachers, therefore, especially those in charge of the welfare of boys and girls out of school hours, hold a position of great responsibility. Some of them can, and do, discharge their responsibility to good effect when necessary. But there are others who, although willing to play their part, are sadly lacking in a sound knowledge of sexual aberrations, or those to whom, on the other hand, anything in the nature of a homosexual practice is a heinous offence meriting immediate expulsion. And, further, there are a few—sometimes conscious of their peculiar condition—who choose teaching as a career because they have homosexual tendencies themselves ; it is the maladjusted members of this group who are a potential source of danger. It does seem a mistake, as is the case in one school I know of, to allow only unmarried men to be housemasters.

In some schools the state of affairs is lamentable ; there is often no one to whom a troubled boy or girl can turn for help or advice. I happened to be at a public school where the headmaster regarded the whole problem in a sane and balanced manner and at which the biology master gave excellent courses of lectures on sex to boys of all age groups. It is at school, where no sexual practice among boys or girls can really be dignified by the word homosexual, that an understanding attitude would be of inestimable value. The adolescent is far more amenable to advice than the adult is to treatment. Is it not the teaching profession, assisted by doctors, which can do the most good ?—I am, etc.,

London. RODNEY H. N. LONG.

Are the People More Healthy ?

SIR,—The account and appreciation of the "Survey of Sickness" which you published in your leader on March 2 (p. 318) is welcomed by the staff of the Social Survey who are carrying on this work. I am sure it is equally welcome at the Ministry of Health, where the data collected by the Survey on the state of the nation's health are reviewed and published. Above all, it will be welcomed by our interviewers, to whom public recognition of the value of their work is a great encouragement.

The samples of 2,000 to 2,500 people are admittedly small to furnish reliable statistics. Whether they are too small cannot be discussed without reference to particular problems for investigation—for instance, whether the incidence of any given illness is unexpectedly high at a particular time or in a particular section of the population is a problem which would need careful handling. It is true to say that the number of problems which could be effectively studied would be increased if the samples were enlarged. But the cost of interviewing is the chief item in the cost of the surveys, and decisions to enlarge the sample are dependent on financial considerations.

The representativeness of the samples is ensured by selecting names by a standard drill from the cards held in local offices for national registration. Continuity in this basic method of sampling increases the reliability of statistics of periodic fluctuations. But all the information collected relates only to the *civilian* population of England, Scotland, and Wales from 16 to 64 inclusive. Thus the population samples have been subject to gross changes during the period under observation.

Among our reasons for reposing confidence in the classifications of illness for the Survey are the three following. First, the interviewers record a description of every illness and particulars of its history in addition to the name assigned to it by the informant (which is often a repetition of the doctor's statement after examination). These records are passed to the Ministry of Health, where the recorded illnesses are classified according to the Medical Research Council code. This procedure preserves a high degree of consistency in the classifications. Secondly, the interest of the work attracts able people for appointment as interviewers, and they receive thorough training. The schedules they use and the instructions they follow have been rendered comprehensive and precise through cumulative experience. Their work is conscientious and always checked. Thirdly, evidence has established the reliability of information on health collected by survey methods. In an investigation made by the U.S. Public Health Service, 90% agreement was found between statements from the family and from the physician (Perrott, G. St. J., Tibbitts, C., and Britten, R. H., *U.S. Public Health Reports*, 1939, **54**, 1663). The family statements used in that investigation were obtained under less favourable conditions than ours.

The information so far published has been extracted by officers of the Ministry of Health. It deals mainly with general rates of incidence of broad classes of illnesses. Articles by Dr. Percy Stocks in the *Monthly Bulletins* of the Ministry of Health are the main references. No information showing the associations between sociological data collected during the interview and data concerning the incidence of illnesses has yet been published, but the Social Survey is examining the available data of this kind and will publish a detailed report shortly.—I am, etc.,

The Social Survey, London, W.1. PATRICK SLATER, Senior Research Officer.

Fundamental Principles and Errors of the Medical Profession

SIR,—Impressed by the imposing list of bodies whose representatives compose the Negotiating Committee, I read the first page of the *Journal* of Dec. 15, 1945, with great expectations. I was correspondingly disappointed, therefore, to discover two fundamental errors in the preamble to the fundamental principles. The first is the use of the phrase "complete health service" where, I submit, "complete medical service" is what is meant. The second error occurs in the lamentable third paragraph, which omits education as the principal factor in the health of the community, and gives first place to "good housing," which is, after all, only one of the "environmental circumstances."

As a council member and office holder of the Victorian Branch of the B.M.A. I have been considerably involved in our local struggle against regimentation, and as lecturer in hygiene at the Melbourne University have given considerable thought to the vital distinction between "health services" and "medical services." It is, I suggest, obvious that all public services are health services in that they have no justification other than to further the well-being of the community. Medical services, including those of doctors in the public health services, make an important contribution to the health of the people, but this is determined mainly by education and by economic factors. Medical men as such obviously cannot remedy the causes of "deficiency disease" in general, still less the "psychological factors" which are so vast a cause of illness. The present tendency of politicians and agitators is to support the idea that what is mainly needed to remedy the ills and unhappiness of the people is more doctors, hospitals, and free medicine ; but the profession must not be so foolish as to assume responsibility for the health of the people, flattering though the idea may seem.

It should be unnecessary to argue in detail that education in its wide and proper sense is a primary essential for the well-being of a community. Granted that the physical requirements for growth and protection are available, which is a matter of economics and social organization, the primacy of education

surely cannot be disputed. It is only by educating—that is, by providing opportunities for the full psychosomatic development of each unique precious individual—that we can hope to achieve a community of positively healthy, self-respecting, intelligently co-operative citizens. Self-respect must be based on successful achievement, socially useful or creative in character. Schools must be such that every child can be good at school, and has to be dragged away from it. It is encouraging that Britain has apparently planned improvements in its educational provisions. It is surely the duty of the profession to foster and encourage those provisions, in the conviction that the teachers will make a greater contribution to the health of the community than can doctors as such.—I am, etc.,

JOHN DALE,
Medical Officer of Health.

Melbourne, Australia.

Lay versus Medical Administration

SIR,—Both Sir Frederick Menzies (Feb. 16, p. 251) and Dr. F. J. Bentley (March 2, p. 327) are looking at this matter from the point of view of the medical profession. Of course it is in the interests of doctors to have medical administration, which will always favour the medical man. From the wider point of view of the interests of the community there is not much doubt that lay administration is preferable for the following reasons:

(1) It is cheaper. (2) It is more likely to be efficient since the only consideration in choosing a lay administrator is his ability to administer, while in the case of doctors much more weight is apt to be attached to their professional qualifications than to their administrative ability. (3) Medical administration is so often, alas, the refuge of the incompetent who is neither a good doctor nor a good administrator. (4) Of the work at the central offices of a large National Health Service 99% will be clerical and executive. Medical work will be done in hospitals and clinics. It is a sheer waste for highly qualified medical men to spend their time and energies on clerical processes.

Sir Frederick Menzies is fundamentally wrong when he says that the problems to be dealt with in the new regional organizations are and will always be predominantly medical—they are not. The problems will be problems of administration, pure and simple, and will be precisely the same problems of administration as arise in any large organization. There will be ample scope for the doctor in the new National Health Service, first in his proper sphere—i.e., in the active practice of his profession of medicine—and secondly in an expert advisory capacity. But for Heaven's sake don't let him spill over into the sphere of clerical work and waste his special talents in a field where he is not at his best.—I am, etc.,

C. E. NICOL.

Epsom Downs.

Diuresis by Suggestion

SIR,—The doctrine of signatures has had many believers through the ages. In bygone days, or in other places, to eat the heart of a lion was to acquire the courage he was thought to possess; or, to jump to contemporary usages, I have sometimes thought that by the same token the viscid syrup of tolu is so commonly included in expectorant mixtures to "cut the phlegm" it resembles. But a more striking instance was recently recorded in your always interesting "Nova et Vetera," where the successful treatment of a case of dropsy by drinking water was described—the water cure. I suspect much was omitted, as is suggested by a case at present under my care. She is a lady of 85 who suddenly developed typical acute congestive heart failure with so much oedema of her legs and thighs that she could not move them. "Try to pass plenty of water," I said. "I can't," she replied. "But try," I urged; "I will help you with some medicine." I made up for her a weak aqueous solution of pot. brom. and pot. cit. which I did not flavour or colour. It must have tasted bad but it looked just like water. I relied on my supposed prescience as a registered medical practitioner. Anyhow it worked and a prodigious urination began. In a few days all the dropsy had gone and she could move her legs freely.

Some important details are omitted in the way the patient was handled, but I believe the happy re-establishment of her circulation was solely the result of suggestion—a strange process on which depends an immense amount of therapy, though often unconscious. How often does suggestion work? It seems to me that there can be only one way. The natural powers of healing; the natural tendency to restoration after injury or impairment; the *vis medicatrix naturae*—somehow they are stimulated or even tricked into activity.—I am, etc.,

E. GALLOP.

London, S.W.1.

Motive in Medical Demobilization

SIR,—In his letter (March 9, p. 371) on "Motive in Medical Demobilization" Sir Ernest Graham-Little states that the Minister of Health will have "in the bag" some thousands of ex-Service doctors who have been subjected to continuous unilateral Socialist propaganda in which a State medical service has been a primary objective. As a doctor lately released from the Royal Naval Volunteer Reserve I have come in contact with many doctors in the Navy, and I have not met *one* who has been imbued with Socialist principles. I am happy to say that I neither saw nor heard of organized political propaganda within the Service. I am quite certain that the majority of demobilized doctors, who during their service have been drafted round the ends of the earth from pillar to post, are quite unfavourable to any form of State medical service as devised by the Socialist Party.—I am, etc.,

W. D. G. TROUP.

London, W.8.

Child Welfare in Singapore Internment Camp

SIR,—I read Miss Mary Thomas's letter (March 9, p. 371) with much interest, and thank her for her generous account of the work of the medical women in the Singapore internment camp. As she refers to a certain disagreement in the camp in which I took a large part, and as there is naturally no account of the case raised by my opponents, I ask you to allow me to state it.

The mothers of children interned in Changi Jail were in a peculiarly difficult position. An appallingly overcrowded jail is a bad home for a child, and the conduct of our children naturally deteriorated. The shortage of the necessities of life sometimes made their normal child-like activities disastrous. And there was added irritation in the fact that members of a family could not get out of sight and sound of each other. All the mothers were harassed, especially those with large families. The opposition to my proposal was that I was giving publicity to the failings of some sorely tried members of the camp.

May I add what I know Miss Thomas would endorse—that of the elect company of those whose conduct was an unfailing inspiration to the camp a goodly number were Eurasian women. —I am, etc.,

PATRICIA R. ELLIOTT.

Witney.

Universities and Colleges

UNIVERSITY OF MANCHESTER

Dr. J. Crighton Bramwell, F.R.C.P., who will complete his period of appointment as professor of systematic medicine at the end of the present session, has accepted the invitation of Council of the University to become professor of cardiology from September next.

Dr. T. H. Oliver, F.R.C.P., whose period of appointment as professor of clinical medicine will be completed in September next, has accepted the Council's invitation to become professor of therapeutics from that date.

ROYAL COLLEGE OF PHYSICIANS OF LONDON

Dr. Maurice Campbell will deliver the Lumleian Lectures on Tuesday, April 16, and Thursday, April 18, at the College, Pall Mall East, S.W., at 5 p.m. Subject: "The Paroxysmal Tachycardias."

ROYAL COLLEGE OF SURGEONS OF EDINBURGH

On March 14 the Right Hon. Thomas Johnston, lately Secretary of State for Scotland, and the Right Hon. Florence Horsbrugh, Parliamentary Secretary to the Ministry of Health 1939–45, received the Honorary Fellowship of the College. Diplomas of Honorary Fellowship were also conferred on Dr. Andrew Davidson, F.R.C.P.Ed., chief medical officer, Department of Health for Scotland; Mr. Eardley Holland, F.R.C.S., President of the Royal College of Obstetricians and Gynaecologists; Sir Edward Mellanby, M.D., F.R.S., secretary of the Medical Research Council; and Air Marshal Sir Harold Whittingham, Director-General, Medical Services, R.A.F. The President of the College, Mr. J. M. Graham, took the chair at the ceremony. Each of the recipients after being presented and given the diploma made a brief speech of thanks.

Obituary

ADOLF LORENZ, M.D.

Prof. G. GREY TURNER writes:

The death of Adolf Lorenz of Vienna at the age of 91 removes a great pioneer in orthopaedics and a colourful figure from the realms of surgery. At the time of my first visit to the Austrian capital in 1899 Lorenz already enjoyed a wide reputation, especially in connexion with congenital dislocation of the hip. He had consulting-rooms in the same apartment house in which I lodged and there were always numbers of his patients hanging about, either waiting to see him or discussing among themselves the result of their consultation or treatment. Even at that time many of these people had come from distant parts and especially from America to be under his care. At the Allgemeine Krankenhaus not only was he in charge of wards and had an out-patient department but his visits were always eagerly expected and there were many visitors. No arrangements were made for the convenience of the students, who clustered round this tall outstanding man, distinguished by a long and voluminous beard. This crowding round the teacher was usual in Vienna, for I especially recall the cosmopolitan crowds round Politzer, of otological fame, and Chiari, the laryngologist, at the Polyclinic.

Lorenz only stayed about a couple of hours, during which time he saw quite a lot of patients and carried out one or two of his bloodless operations. The gross manipulation in a case of wry-neck has always remained in my recollection as a very crude business and not to be compared with the simple open operation. But his reputation as a pioneer in the management of congenital dislocation of the hip can never be assailed, and I am old enough to recall the parlous state of sufferers from that malady before Lorenz pointed the way to cure. In his clinic all was bustle and volubility while the chief demonstrated, but when he left relaxation was the order of the day. Thereafter woe betide the innocent visitor who fell into the trap when asked if he would like a little practice in plaster work, for the business of changing and renewing plasters went on for hours. He had been trained for a career as a general surgeon, but the story was then current that he was driven to develop bloodless surgery because his skin was so susceptible to antiseptics of all kinds. As a result he suffered from severe attacks of dermatitis after working in the operating theatre and found that he would have to adopt some other branch of professional activity. In later life he made rather a joke of his methods and twitted the surgeons who, he said, "loved streams of blood," while he boasted that he never wasted a drop. His old friend Robert Jones was present when I next saw Lorenz at work, in 1912, and they had a rare time together. On that occasion Lorenz demonstrated a large number of cases showing the after-results of manipulative treatment for congenital dislocation of the hip. He had these patients walk round and round a table and invited the visitors to identify the side which had been affected. One patient had come from America, and Lorenz was vastly amused when Robert Jones was puzzled in deciding which side had been treated. As the moments passed Lorenz got more and more excited, stroking his long beard the while. Finally he burst out laughing as he informed the company that it had been a bilateral case. Lorenz's reputation in the surgical world undoubtedly suffered after an early visit to America when he went over to treat the daughter of one of the great packing houses. I have heard a good deal about that visit, and always feel that he was unfairly treated by the newspaper men, who were really responsible for some of the rather crude and reprehensible things that were blamed on to poor Lorenz.

ROBERT KLABER, M.D., F.R.C.P.

Dr. Robert Klaber, who died suddenly at his home in London on March 2 at the early age of 45, had already made his mark in dermatology. The son of Augustus Klaber he was born at South Norwood on Dec. 24, 1900, and was educated at Tonbridge School and for two years edited the school magazine. He had a distinguished student career at St. Bartholomew's Hospital, where he won the Burrowes and Skynner prizes and was *proxime accessit* for the Brackenbury medical scholarship. He graduated M.B., B.S.Lond. in 1924, took the M.R.C.P. in 1927 and the M.D a year later, and was elected F.R.C.P. in 1941. After qualifying he served as house-surgeon and house-physician at the Radcliffe Infirmary, Oxford, and casualty officer at the Royal Northern Hospital, and took the D.P.H. and the D.T.M.&H. In 1929 he was appointed junior demonstrator in pathology and clinical assistant in the skin department at Bart's and later chief assistant there, and was elected physician to the skin department of the Prince of Wales's General Hospital, Tottenham. He also lectured on dermatology at the associated North-East London Postgraduate College.

When war broke out in 1939 Klaber took up duty as consulting dermatologist to Sector 2 of the Emergency Medical Service, and he organized a skin unit when the Haymeads Hospital at Bishops Stortford was upgraded. He was an active member of the British Association of Dermatology and Syphilology and had been secretary to the Section of Dermatology of the Royal Society of Medicine. He published a number of papers on skin diseases, including an account (written jointly) of the pathogenesis of rosacea. Apart from his main hospital appointments he had been consultant to the L.C.C., to the Harrow and Wealdstone Hospital and the Bishop's Stortford General Hospital, and more recently to the Luton and Dunstable Hospital.

W. F. NEIL, M.B., F.R.C.S.

Mr. William Fulton Neil died at his home in Nottingham on Jan. 21. He was born at Dunedin, New Zealand, in 1882, and after qualifying there came to England and obtained his F.R.C.S. in 1910, and then came to Nottingham as house-surgeon. After serving in the 1914–18 war and attaining the rank of major, he returned to Nottingham and was quickly promoted to the honorary staff of the General Hospital. At the time of his death he was chairman of the Medical Committee. A few years ago he was the president of the Nottingham Medico-Chirurgical Society and also president of the Surgical Union of Great Britain. He was consulting surgeon to the E.M.S.; consulting surgeon to the Ilkeston Hospital, the Heanor Hospital, and the Skegness Hospital. He was a Justice of the Peace, and a past chairman of the Nottingham Division of the B.M.A. Mr. Neil was due to retire in March and was looking forward to paying a visit to his relatives in New Zealand. He had been in failing health for some months, but remained in active practice and continued to take unabated interest in hospital affairs until a few days before his death.

His death (writes a colleague) removes one of the best-known surgical specialists in the East Midlands, and a man of more than local fame. Having perhaps no hobbies, he devoted himself to two ends—the welfare of the Nottingham General Hospital and the welfare of his individual patients. He had that gift of obtaining a patient's absolute confidence. His interest was focused chiefly in gastric surgery, and he was one of the pioneers of this art and its modern developments in the Midlands. His practice was large, but his solicitude for the individual was never perfunctory, nor did his interest end when the patient left the theatre. He was prepared to operate at an early hour in the morning, to continue in the theatre throughout the day, and finish at a late hour at night, and only a man of his physique and capacity for work would have been able to carry on as long as he did. His singular devotion to duty undoubtedly accelerated his death.

His colleagues on the hospital staff and innumerable patients will have heard of his death with the deepest sense of loss; mourning not only a brilliant surgeon but the kindest and most generous of men. In 1915 he married Miss Eva Kerr-Smith, a Sister at the hospital, and he is survived by his widow and three children, a son and a daughter being qualified and serving in the R.A.M.C.

WILLIAM MCKEE BONNAR, who died on active service in India as the result of a flying accident, qualified with second-class honours at Queen's University, Belfast, in 1939. After spending terms as house-surgeon and house-physician in the Royal Victoria Hospital, Belfast, he moved to the Department of Physiology, Queen's University, as demonstrator in physiology. While in this position he wrote a thesis which gained him his M.D. with gold medal. He joined the R.A.F. in 1942, and after some time in Great Britain was eventually sent to India. One of the most brilliant students of his year, he combined a high talent with great self-discipline in the use of it. He will be remembered by his friends, not only for his academic attainments, but for the quiet, unassuming depth of his character.

The following well-known medical men have died abroad: Dr. JOSEPH MCFARLAND, emeritus professor of pathology at the University of Pennsylvania, aged 77; Dr. ELLSWORTH ELIOT jun., past-president of the American Surgical Association, aged 81; Dr. SINAI TSCHULOK, professor of biology at Zürich University; Dr. SZILY, a Budapest ophthalmologist; and Dr. E. E. MAAR, professor of the history of medicine at Copenhagen University, aged 68.

Medical Notes in Parliament

Smallpox Cases Aboard Ship

Mr. THOMAS BRADDOCK asked on March 7 whether the R.A.M.C. officer at Hampstead who "gave" his wife and daughter smallpox infection had been vaccinated, whether the R.A.M.C. sick-berth attendant who infected his nephew with smallpox at Grays had been vaccinated, and whether the three cases of infection which developed from these two members of the R.A.M.C. were in vaccinated persons. Mr. BEVAN replied that all the persons mentioned had been vaccinated at some time, though dates of last vaccination varied considerably, as did the severity of the attacks.

In a further question Mr. BRADDOCK asked how many cases of smallpox had been landed in the Mersey from a ship arriving from India, how many of the crew developed smallpox and were put ashore at Suez, and what was the vaccinal condition of the cases of smallpox that developed in this ship. Mr. BEVAN assumed that the ship referred to was the *Empress of Australia*. He learnt that one case of smallpox (a member of the crew) was landed at Liverpool on Feb. 18. No member of the crew developed smallpox and was put ashore at Suez, but two cases and one suspected case (not members of the crew) were landed there. He had no information as to the vaccinal condition of the patients landed at Suez, but was informed that the patient landed at Liverpool was vaccinated in infancy, and had been revaccinated several times during the war but without the vaccination taking.

Tropical Diseases: Temporary Hospital Premises

Presenting on March 11 a Supplementary Estimate for Colonial and Middle Eastern Services, Mr. CREECH JONES said one item in the Estimate was concerned with the Seamen's Hospital Society in London. It represented the balance of a loan to enable the Society to re-establish in London a hospital for tropical diseases. At present hardly any accommodation was available for patients suffering from these diseases. It was desirable that patients should be treated near the School of Hygiene and Tropical Medicine in Central London. The tropical diseases hospital in Endsleigh Gardens, which was requisitioned by the Ministry of Health in 1939, was now declared by the Ministry to be unsuitable for use as a hospital. It was proposed to go ahead with a new tropical diseases hospital, but it was only at the planning stage. As an interim measure the Seamen's Hospital Society had acquired 23, Devonshire Street, which had accommodation to provide a maximum of 40 beds. The Society had not the funds to meet this cost and the Treasury had agreed that a short loan of £60,000 should be made. The Government now asked that a second loan should be available. He hoped this would be repaid comparatively soon.

Dr. MORGAN said there were already four institutions in London dealing with tropical diseases—the Seamen's Hospital in Greenwich, the Postgraduate Medical School, the hospital which used to exist in Endsleigh Gardens, and the School of Hygiene and Tropical Medicine. This temporary grant was a waste of money. It would be better at present to use beds in ordinary hospitals instead of lending money to reconstruct an old house in Devonshire Street. Mr. OLIVER STANLEY was surprised that it was worth while to make this loan seeing that it had to be repaid at the end of the year. While he was at the Colonial Office a small committee considered a long-term project concerning tropical diseases. They were in search of sites, but there was no question of a reconditioned house. The aim was something much bigger and better.

Replying, Mr. CREECH JONES said a big tropical diseases hospital was being planned. In the interim it was proposed that 23, Devonshire Street should be acquired. That was a modern building and would give the Seamen's Hospital Society a nursing home which could be readily transformed into a hospital.

The House approved the Estimate.

Release of Doctors

Mr. TURTON inquired on March 13 how many R.A.F. medical officers were specialists and on that account "frozen" from the operation of the Class A release scheme. Mr. J. STRACHEY replied that there were 134 R.A.F. medical officers filling specialist posts. The Air Ministry had told those who would otherwise be due for release up to the end of May—74 in all—that they would have to keep them on under the "military necessity" clause. The Central Medical War Committee was calling up specialists, for a period of 18 months, who had not yet served in the Forces and were over 30 years of age. The Air Ministry trusted that it would receive a sufficient allocation of these new entrants to enable it to release as many as possible of its own specialists. It was also accepting volunteers aged 40 and over for a similar period of service.

An assurance that the present quota of new recruits to the R.A.F. medical branch is adequate was requested on March 14 by Mr. ALLIGHAN. He further asked what were the quotas of new medical officers originally decided upon for each of the three Services for the first half of 1946, and what adjustment was to be made in view of the disparity in the release rates of general duty medical officers. Mr. BEVAN said that provisional quotas for the first half-year, 1946, were Navy 60, Army 280, R.A.F. 110. The question of adjusting the quotas, including particularly the adequacy of the intake to the R.A.F., was being considered by the Government. These quotas applied to young practitioners up to the age of 30. In addition the recruitment of specialists continued over the age of 30 to provide substitutes for specialists in the Forces who could not be released without replacement.

Mr. A. V. ALEXANDER furnished on March 11 a table of estimated monthly releases from the Royal Navy, which showed the latest dispersal dates for medical officers to be April 30 for Groups 48 and 49, May 31 for Groups 50–52, and June 30 for Groups 53–55.

Pleurisy and Erythema Nodosum: Notification

On March 14 Dr. BARNETT STROSS asked whether the Minister of Health would cause the conditions of pleurisy, phlyctenular conjunctivitis, and erythema nodosum to be made subject to provisional notification to assist in the prevention and treatment of tuberculosis. Mr. BEVAN replied that the desirability of bringing these conditions to the attention of the tuberculosis service was recognized, but this would not be achieved simply by instituting a procedure of notification. The important thing was that general practitioners should be fully aware of the significance of these conditions in relation to tuberculosis, and should encourage recourse to the specialist facilities of the tuberculosis service whenever they were encountered. He was considering what he could do to help in this.

Silicosis with Tuberculosis

In an answer on March 14 to Dr. Stross, Mr. JAMES GRIFFITHS reported that in the twelve years 1933 to 1944, 19% of the workers in the pottery industry who were certified by the Silicosis Medical Board were found to be suffering from silicosis accompanied by tuberculosis. In cases of silicosis, tuberculosis could become manifest after certification. The experience of the Medical Board in North Staffordshire was that the average period between certification and death, in which death was found to have been caused by silicosis accompanied by tuberculosis, was just over two years. In cases of silicosis alone it was five to seven years. In the individual case the period depended largely on the workman's age and the degree of his disablement at the time of certification.

Tuberculosis in the Navy

The following table gives the totals of officers and men who were invalided out of the Navy with tuberculosis in the years 1939 to 1945.

Year	Officers	Ratings	Total
1939	11	213	224
1940	30	441	471
1941	33	811	844
1942	67	1,364	1,431
1943	87	1,555	1,642
1944	142	1,843	1,985
1945	101	1,565	1,666
Total ..	471	7,792	8,263

The figures include Royal Marines. Separate figures for warrant officers are not readily available, and they have, therefore, been included with the officers.

Medical Students under Government Training Scheme.—Applications received up to March 5 under the Government Further Education and Training Scheme included 904 with medicine as the professional career in view. Of these applicants 185 received awards. For dentistry, applications were 209 and awards 53; for pharmacy, applications 181 and awards 34; for training as radiographer, applications 66 and awards 19; for occupational therapy, applications 202 and awards 56.

Specialists in West African Command.—Sir ERNEST GRAHAM-LITTLE on March 7 asked the Secretary for War to inquire into the position of specialist medical officers in West Africa at present employed on general duties, largely administrative. Mr. LAWSON replied that because of the scattered nature of the West African Command it was impossible to secure concentration of specialist facilities. It

was necessary to maintain an adequate specialist establishment at a number of centres. This meant that some specialists would not always be employed full-time on specialist duties. In such cases a specialist was required to undertake a share of general medical duty. Mr. Lawson added that he would ensure that any specialist who was being employed whole-time on general duties was either repatriated to the United Kingdom for release or transferred to another command where he could be employed in his specialty.

Punishment of Borstal Boy by Restricted Diet.—Mr. G. LANG on March 12 raised the circumstances of the death last November of a Borstal boy of 19. He said the boy had been severely punished and later was transferred to another institution, where he died despite careful and complete medical attention. This boy had been put for 30 days on restricted diet, and the medical evidence later used the word anaemia. Mr. CHUTER EDE said the inquiry into this case had been conducted by Judge Eastham, a lawyer who held medical degrees. Mr. Ede confessed that he was concerned at the infliction of severe dietary punishment on growing boys and girls and intended to have a careful investigation into it, although there must be effective means of maintaining discipline.

Medical News

If the Government's Bill for a National Health Service has been published by Friday, March 22, a meeting of practitioners resident in Wandsworth, Kingston, Richmond, Croydon, Reigate, and Guildford Divisions will be held in Wimbledon Town Hall at 2.30 p.m. on Sunday, March 24. This meeting, which will be open to members and non-members of the Association, will be addressed by Dr. Charles Hill, the Secretary of the Association. The subject will be "The Profession and the Bill." Dr. Hill will also speak at professional meetings in Bristol on March 27, in Lambeth Town Hall on March 28, at Stoke-on-Trent on March 29, Manchester on March 30, Liverpool on March 31, St. Albans on April 2, B.M.A. House, London, on April 4, in Edinburgh on April 6, in Glasgow on April 7. He will address public meetings in Bristol on March 27, in Stoke-on-Trent on March 29, in Bournemouth on April 10, in London on April 11, in Tunbridge Wells on April 16, in Norwich on April 17. These meetings will be the subject of local announcements giving fuller details.

A meeting of the Scottish Group of the Association of Industrial Medical Officers will be held in the Institute of Hygiene, University of Glasgow, on Wednesday, March 27, at 3 p.m., when Dr. Myles of I.C.I. will read a paper on "Dust Counting." Medical practitioners and all others interested are invited to attend.

Sir Jack Drummond, Scientific Adviser to the Ministry of Food, will read a paper on famine conditions and malnutrition in Europe at the Royal Society of Arts, John Adam Street, Adelphi, London, W.C.2, on Wednesday, March 27, at 5.30 p.m. Sir Ben Smith, the Minister of Food, will preside.

The 66th annual meeting of the Mental After Care Association will be held in the rooms of the Royal Society at Burlington House, Piccadilly, W., on Wednesday, March 27, at 2.45 p.m., under the presidency of H.R.H. Princess Arthur of Connaught. The speakers include Dr. J. Bram, of the Polish Medical Services, Dr. Duncan Whittaker, and Dr. Henry Yellowlees, chairman of the association. All interested are invited to attend.

A sessional meeting of the Royal Sanitary Institute will be held at Bedford Town Hall on Thursday, March 28, at 10.30 a.m., when a paper on "Epidemic Disease: Past, Present, and Future" will be read by Dr. G. K. Bowes.

A meeting of the Clinical Society of the Royal Eye Hospital will be held at the hospital (St. George's Circus, Southwark, S.E.) on Thursday, March 28, at 5.30 p.m., when a talk will be given by Dr. W. W. Mushin on "Anaesthesia for Ophthalmic Operations." Cases and tea at 5 p.m.

A meeting of the Medico-Legal Society will be held at 26, Portland Place, W., on Thursday, March 28, at 8.15 p.m., when a paper will be read by Dr. A. Lisle Punch on "Tuberculosis and the Law."

An appeal will be broadcast in the Week's Good Cause, 8.25 to 8.30 p.m., on March 31 by Mr. Basil Henriques, on behalf of St. Mary's, Birchington, the Home of Recovery for Diabetics. Contributions should be addressed to Mr. Henriques, the Diabetic Association, 9, Manchester Square, W.1.

Prof. Noah Morris, M.D., F.R.S., of the chair of materia medica and therapeutics in the University of Glasgow, has been appointed a member of the Inter-University Council for Higher Education in the Colonies.

Sir Edward Mellanby, M.D., F.R.S., secretary of the Medical Research Council, will give an address on "Medical Research in War and Peace" before the Royal Institution, 21, Albemarle Street, W., on Friday, April 5, at 5 p.m.

Dr. C. H. Rogerson, for the past nine years medical superintendent of the Cassel Hospital, has accepted an invitation to go to Baltimore to become clinical director of the new Seton Psychiatric Institute. This is to be run somewhat on the lines of a general hospital with a visiting staff of psychiatric consultants and is also to be a post-graduate training school.

The British Association of Physical Medicine has now been admitted to the Joint Secretariat for Specialist Associations, established by the Royal College of Surgeons, and all correspondence should be addressed to 45, Lincoln's Inn Fields, London, W.C.2. (Telephone: Chancery 6965.)

The Emergency Public Health Laboratory in Oxford has moved to a new building in the grounds of the Radcliffe Infirmary. Communications should be addressed to the Director (Dr. R. Knox), Public Health Laboratory, Walton Street, Oxford. Telephone numbers remain as before—Oxford 47884/5.

The Minister of Health states that he is informed by the Ministry of Food that there is no longer any need to restrict supplies of ascorbic acid to hospitals. Circular 73/44 of June 28, 1944, is therefore withdrawn.

An Order (S.R. & O. 1946, No. 250; H.M. Stationery Office, 2d.) issued by the Ministry of Education repeals the Mental Deficiency (Notification of Children) Regulations, 1928(c), and prescribes the records and information which should accompany every report made by a local education authority concerning a child examined for disability of mind. The first schedule to the Order contains the form of report required from the medical officer.

A large number of medical officers have reappeared in Belfast Medical School on demobilization. The Dean of the Medical Faculty of the University is chairman of a committee which is endeavouring to deal with the many requests for resident and post-graduate appointments. The opportunity of giving postgraduate instruction has not been neglected, and an intensive course is in operation at the teaching hospitals and the Institute of Pathology. Clinical demonstrations and special lectures appear in the programme for each day of the week.

Papers on the planning and equipment of special libraries given at the 1945 conference of the Association of Special Libraries and Information Bureaux roused so much interest that Aslib has been asked to give a further opportunity for the discussion of these problems. By consent of the Royal Institute of British Architects a one-day conference will be held at 66, Portland Place, London, W., on Saturday, April 6. The planning and equipment of university and college libraries will form the main subject of the morning session; the afternoon will be devoted to similar problems with special reference to research organizations and industrial concerns. An inclusive fee covering both sessions of the conference, mimeographed copies of the papers to be presented (which will be circulated before the meeting), and a buffet lunch and tea at the R.I.B.A. will be 10s. to members of Aslib and of the R.I.B.A. and £1 to non-members. Applications should be sent to the general secretary, Aslib, 52, Bloomsbury Street, W.C.1, as soon as possible.

Prof. G. H. Monrad-Krohn, Norway's foremost neurologist, is leader of the Norwegian medical and scientific delegation which has come to England (at the invitation of the British Council) to study advances in medicine and allied sciences made during the years of German occupation of their country. Thirty-three years ago Prof. Monrad-Krohn was resident medical officer at the Maida Vale Hospital for Nervous Diseases, and on March 12 he was the guest of honour at a reunion luncheon given by Viscount Davidson, now president of the hospital. He spoke affectionately of his old association with the Maida Vale Hospital, and said that one of his most abiding recollections was that, always the home of research, the hospital made a point of a prompt application of results of research to treatment. Among members of the staff sharing the reunion were Dr. Wilfred Harris, Dr. Anthony Feiling, Dr. W. Russell Brain, Mr. Dickson Wright, Mr. Wylie McKissock, Dr. James Bull, Dr. E. A. Blake Pritchard, Dr. Redvers Ironside, and Dr. S. P. Meadows.

Dr. John Orr, who, when he retired twelve months ago, had been Dean of the School of Medicine of the Edinburgh Royal Colleges for 21 years, has lately received gifts from students and lecturers of the school in recognition of his deanship. The presentation was made in the Hall of the Royal College of Surgeons in the presence of a large gathering. Mr. W. J. Stuart, chairman of the Governing Board, speaking on behalf of the older members of the medical school, said that Dr. Orr began to teach there in 1913 and became dean in 1924, an almost whole-time job and one without any financial inducement. He managed the school with the most conspicuous success and had been a guide, guardian, servant, and benefactor. Mr. D. S. Griffith, president of the Students' Representative Council, spoke on behalf of the students. Dr. Orr, in his speech of thanks, said he wished the balance of the amount collected to be devoted to an annual prize for the students; and Sir John Fraser, Principal of the University, in accepting custody of the money for the Orr Prize, described Dr. John Orr as one to whom the Medical School of Edinburgh owed a very great debt.

No. 9

INFECTIOUS DISEASES AND VITAL STATISTICS

We print below a summary of Infectious Diseases and Vital Statistics in the British Isles during the week ended March 2.

Figures of Principal Notifiable Diseases for the week and those for the corresponding week last year, for: (a) England and Wales (London included). (b) London (administrative county). (c) Scotland. (d) Eire. (e) Northern Ireland.

Figures of Births and Deaths, and of Deaths recorded under each infectious disease, are for: (a) The 126 great towns in England and Wales (including London). (b) London (administrative county). (c) The 16 principal towns in Scotland. (d) The 13 principal towns in Eire. (e) The 10 principal towns in Northern Ireland.

A dash — denotes no cases; a blank space denotes disease not notifiable or no return available.

Disease	1946 (a)	(b)	(c)	(d)	(e)	1945 (Corresponding Week) (a)	(b)	(c)	(d)	(e)
Cerebrospinal fever	70	12	28	1	3	77	5	33	8	1
Deaths		2	1				2	—		
Diphtheria	501	34	116	71	11	470	21	141	112	7
Deaths	9	—	—	1	—	10	1	1	4	—
Dysentery	323	24	75	6	—	399	69	165	—	—
Deaths				—	—				—	—
Encephalitis lethargica, acute	3	—	—	—	—	—	—	—	—	—
Deaths		1					—			
Erysipelas		—	44	13	3		—	51	10	3
Deaths										
Infective enteritis or diarrhoea under 2 years	57	10	10	51	4	58	10	13	16	4
Deaths				8					12	
Measles*	1,583	372	292	60	1	22,480	986	433	25	87
Deaths	2	1	4	2	—	18	—	1	—	—
Ophthalmia neonatorum	59	1	17	—	—	67	5	19	1	—
Deaths										
Paratyphoid fever	23	—	1 (B)	—	1 (B)	3	—	2 (B)	—	—
Deaths	—	—	—		—	—	—	—	—	—
Pneumonia, influenzal	860	59	31	37	3	905	48	15	14	3
Deaths (from influenza)†	123	14	12	3	1	39	6	4	—	1
Pneumonia, primary		46	307	39	15		48	254	21	10
Deaths				16					6	
Polio-encephalitis, acute	1	—				—	—			
Deaths		—					—			
Poliomyelitis, acute	7	—	1	1	—	4	—	—	—	1
Deaths		—					—			
Puerperal fever			10		—			16		1
Deaths										
Puerperal pyrexia‡	126	4	12	3	—	124	10	13	1	2
Deaths		—					—			
Relapsing fever	—	—			—	—	—			—
Deaths										
Scarlet fever	1,232	86	176	22	29	1,461	53	199	23	35
Deaths	2	—	—	—	—	2	—	—	—	—
Smallpox	8§	—	—	—	—	—	—	—	—	—
Deaths				—	—				—	—
Typhoid fever	8	—	2	8	—	13	1	1	16	1
Deaths	—	—	—	—	—	—	—	—	1	—
Typhus fever	—	—	—	—	—	—	—	—	—	—
Deaths				—	—				—	—
Whooping-cough*	1,605	142	69	38	11	1,462	66	163	79	6
Deaths	13	—	—	2	1	10	—	1	2	2
Deaths (0-1 year)	398	48	73	42	29	413	49	64	33	26
Infant mortality rate (per 1,000 live births)										
Deaths (excluding still-births)	5,556	886	685	247	157	4,959	701	611	230	156
Annual death rate (per 1,000 persons living)			15·1	15·8				13·9	14·8	
Live births	7,487	1,032	945	396	273	7,008	765	820	332	267
Annual rate per 1,000 persons living			19·0	25·4				16·4	21·4	
Stillbirths	216	32	30			213	28	33		
Rate per 1,000 total births (including stillborn)			31					39		

* Measles and whooping-cough are not notifiable in Scotland, and the returns are therefore an approximation only.

† Includes primary form for England and Wales, London (administrative county), and Northern Ireland.

‡ Includes puerperal fever for England and Wales and Eire.

§ 5 imported cases.

EPIDEMIOLOGICAL NOTES

Maternal Mortality

Recent returns have shown that maternal mortality, for the country generally, has reached the lowest level yet recorded. The national standard of nutrition has been cited as the principal reason for this fall. In view of the publicity this death rate has received, an examination of the individual causes of death under this heading may be helpful in attempting to establish the reason for the decrease. The death rates per 1,000 total births (live and stillbirths) during the past ten years are tabulated below:

Cause of Death Ascribed to Pregnancy and Childbearing (Excluding Abortion): 1940 Classification

International List No.	Cause of Death	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944
142	Ectopic gestation	0·13	0·11	0·12	0·12	0·10	0·12	0·10	0·12	0·08	0·06
143	Haemorrhage of pregnancy	0·09	0·08	0·07	0·07	0·05	0·05	0·06	0·03	0·03	0·02
144	Toxaemia of pregnancy	0·20	0·23	0·24	0·21	0·27	0·21	0·22	0·17	0·14	0·10
145	Other accidents and diseases of pregnancy	0·05	0·06	0·06	0·05	0·04	0·02	0·03	0·02	0·04	0·04
146	Haemorrhage of childbirth, etc.	0·38	0·40	0·41	0·42	0·41	0·32	0·38	0·31	0·27	0·27
147	Infection during childbirth and the puerperium	1·34	1·18	0·79	0·70	0·62	0·54	0·47	0·42	0·39	0·28
148	Puerperal toxaemia	0·58	0·58	0·57	0·52	0·47	0·42	0·41	0·43	0·39	0·33
149	Other accidents of childbirth	0·55	0·46	0·46	0·56	0·54	0·46	0·50	0·47	0·48	0·40
150	Other conditions of childbirth	0·09	0·09	0·08	0·06	0·05	0·03	0·04	0·03	0·03	0·03
142–150	Maternal causes	3·41	3·19	2·79	2·70	2·55	2·18	2·22	2·01	1·84	1·53

With the exception of 1941 the death rate has declined steadily during the past ten years. The most notable feature of the table is the large reduction in mortality from sepsis; this rate fell by 1.06 per 1,000 during the ten years and contributed 56% of the total decrease of 1.88. The only cause of death for which the improvement has appeared in the last few years is toxaemia of pregnancy, which has declined from 0.22 in 1941 to 0.10 in 1944. A factor that may affect any comparison of recent years with the pre-war years is the difference in average age at confinement. Data are not yet available on this point, but the marriage boom during the war resulted in a lower average age at marriage and possibly a lower age at first confinement.

Discussion of Table

The decreased incidence of pneumonia was general throughout the country, the largest fall being Durham 42. The decline in scarlet fever was mainly contributed by Lancashire 40 and London 30. The local trend of whooping-cough fluctuated: the largest falls were Lancashire 73, and Yorkshire West Riding 43, and the greatest increase was Essex 42. The largest variations in the returns of diphtheria were decreases in Lancashire 14, and Monmouthshire 10. A fall in the notifications of measles was recorded in Lancashire 64, and in Norfolk 52, and an increase in Durham 48.

All the 23 cases of paratyphoid fever occurred in the village of Wootton, Newport M.B., Isle of Wight. The outbreak has been traced to infected milk, and the majority of the cases were among children. Dysentery continues to be widespread, and the principal returns were Lancashire 38, Leicestershire 32, Northumberland 27, Worcestershire 26, Warwickshire 25, London 24, Staffordshire 18, Gloucestershire 17, Surrey 14, Glamorganshire 13, Northamptonshire 12, Yorkshire West Riding 11, Cambridgeshire 10. No further case of dysentery has been reported from the outbreak in Hertfordshire, Bushey U.D., where 74 cases were recorded last week.

In *Scotland* infectious diseases were less prevalent. The only rises were scarlet fever 14, and dysentery 13. A diminished incidence was recorded for measles 101, whooping-cough 29, acute primary pneumonia 26, and diphtheria 20.

In *Eire* the notifications of diphtheria increased by 20, and of diarrhoea and enteritis by 11. In Dublin C.B., where the notifications have steadily increased during the past two weeks, 42 cases of diarrhoea and enteritis were recorded.

Week Ending March 9

The notifications of infectious diseases in England and Wales during the week included: scarlet fever 1,137, whooping-cough 1,843, diphtheria 477, measles 1,672, acute pneumonia 849, cerebrospinal fever 45, dysentery 295, paratyphoid 16, typhoid 5. There were 112 deaths from influenza in the large towns.

Letters, Notes, and Answers

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ANY QUESTIONS?

Premature Ejaculation

Q.—*I have heard of "local electrical treatment" for premature ejaculation. Can you give details of this or any other treatment?*

A.—Premature ejaculation is often considered to show an excessive "keenness" on the part of the man. This is not the case. Premature ejaculation is due not so much to an excess of sexuality as to an inhibition against it. It is of the same nature as impotence—a means of avoiding intercourse. This may be due to some present-day cause, such as fear of getting a baby, but most commonly it arises from more deep-seated conditions—an unconscious fear of sex (though not a conscious one); a sense of guilt about sex which will not permit complete intercourse; an unconscious resentment against the female; or a narcissism, which seeks the pleasure without sharing it. The proper treatment is to discover and eradicate the cause, which can usually be done by an expert medical psychologist. In young married people the condition usually rights itself as confidence is gained. It is therefore important that the partners should try not to worry about it.

I have no experience of electrical treatment, but would suspect that, if it is successful, it is so on account of its suggestive effect. In fact this condition used often to be cured by suggestion treatment, which, though now little practised, may be permanent in its effects, in that, once a satisfactory result has taken place, everything goes well thereafter.

Thrombophlebitis Migrans

Q.—*A male aged 40 has been having pain in his calf for four months. Two months ago he had severe pleuritic pain with slight haemoptysis. One month ago he had a thrombosis of the right femoral vein with oedema of the leg. During attacks his temperature is 100° F.; E.S.R. 20 mm. (Westergren). Sputum, x-ray, blood examination, W.R., etc., negative. Is the diagnosis thrombophlebitis migrans? What are the prognosis and the treatment?*

A.—The sequence of events in this case is diagnostic of thrombophlebitis migrans. Even if the pulmonary episode is regarded as an embolic consequence of an earlier thrombophlebitis of the leg, there is still the ensuing right femoral thrombophlebitis to be taken into account. Fever and leucocytosis with increased E.S.R. are characteristic of this disease, and the negative results of the investigations mentioned are consistent with the diagnosis.

In general there is no obvious infective cause, but in some cases there are found foci of sepsis from which bacteriaemia could arise. Blood cultures are negative. The ultimate prognosis is good, although occasionally venous thrombosis in the vessels of the brain, heart, or abdomen causes serious and sometimes problematic illnesses. The successive thromboses occur at intervals over a period ranging from two or three months to four or five years. At any time the illness may come to an end, no further phlebitis developing

In the first place treatment is directed to the removal of any obvious cause such as dental sepsis. Symptomatic measures have to be adopted during the "thrombotic episodes." An augmented fluid intake and the administration of citrates should help to prevent further thromboses. The anticoagulant "dicoumarol" has been used in the treatment of thrombophlebitis; in doses of 100 mg. thrice daily by mouth it is claimed to reduce the pain and oedema of the affected part. This drug is still under trial, and its use must be controlled by daily estimations of plasma prothrombin.

Incidence of Anaemia

Q.—*Anaemia is now prevalent in this and other countries. When I was a student, at the beginning of the century, students' blood taken and examined for instructional purposes in the physiological laboratory never, for practical purposes, revealed anaemia. Would you agree that there was no generalized tendency to anaemia during the first half-dozen years of this century, but that from then on there was?*

A.—There is no evidence that anaemia is more common in students to-day than formerly. The figures given for male students in the M.R.C. Special Report No. 252 on haemoglobin levels in 1943 are eminently satisfactory, as are those for women students in the Provinces (Higgins *et al., Brit. J. industr. Med.*, 1945, **2**, 74). Figures for women students in the London area are less satisfactory, and there may have been some deterioration in them as a result of the dislocation of war and inadequate taking up of rations. For the population of the country as a whole there are few past figures to compare with modern surveys, but such as are available indicate that anaemia is actually less prevalent than it was. Perhaps the most convincing evidence of this is the decline in chlorosis. As shown by J. M. H. Campbell (*Guy's Hosp. Rep.*, 1923, **73**, 247), there was a steady decline in the number of cases of chlorosis from 1903 to 1918. Campbell attributed this to improved conditions of factory life and domestic service, and there is no doubt that by and large this improvement has continued and, indeed, has been accelerated by the second great war.

Rh Factor and Mongolism

Q.—*A young officer recently consulted me because his wife had given birth to a mongolian idiot, which had died after five days. They have one normal child aged 3. A doctor said that the child had died "because of the Rh factor." What is the Rh factor, expressed in words a layman would understand, and is there any connexion between this factor and mongolian idiocy?*

A.—There is no connexion between the Rh factor and mongolism; the appearance of erythroblastosis in a mongol baby would be fortuitous. It seems strange, however, that a diagnosis of mongolism could have been made as early as the fifth day of life. Might not the condition have been kernicterus, discussed in a leading article in this *Journal* (Aug. 11, 1945, p. 188), in which the brain is damaged by the jaundice?

The "Rh factor" is now known to depend upon a complex of antigens borne in the red cells. Antibodies capable of agglutinating red cells carrying the corresponding antigens do not occur naturally; but they may develop in one of two ways in the serum of individuals not carrying those particular antigens: (1) by the transfusion of red cells containing an antigen into the circulation of a person lacking it; or (2) the antigen from a foetus may pass into the mother's circulation, and if she lacks it she may develop the corresponding antibody. This in turn passes back and agglutinates the foetal cells, so giving rise to erythroblastosis foetalis.

It has been found that one particular antigen belonging to the Rh complex, called "D" in the newest and simplest terminology, is much more important from the practical point of view than the rest. The great majority of cases of erythroblastosis arise in infants who possess D, having inherited it from their fathers, but whose mothers lack it. Anti-D develops in the mother's serum and agglutinates the infant's red cells. For practical purposes the presence or absence of D can be equated to the Rh-positive and Rh-negative categories of the original Rh story. In 10% of all pregnancies there is the combination of an Rh-negative mother and an Rh-positive child—i.e., the former lacks and the latter has the antigen D. In perhaps 5% of such instances anti-D develops in the mother's serum, giving rise to erythroblastosis foetalis. This will rarely, if ever, happen with a first child, unless the mother has previously been sensitized by blood transfusion. Apart from transfusion, the danger arises with the second or a subsequent child. Once the mother has been sensitized the risk in subsequent pregnancies is very great.

It must be noted, however, that an Rh-positive husband may carry the gene producing D upon both chromosomes of the pair concerned or upon one only. If upon both all children will carry D; if upon only one chromosome half his children will carry it. A child who does not carry D cannot, of course, have its cells agglutinated, even if the mother has developed anti-D, and so will escape.

If the death in the family mentioned in the question was due to erythroblastosis foetalis, it will be found that the mother lacks D, while the father and the first child possess it. The mother was, of course, sensitized during the first pregnancy, and anti-D may be demonstrable in her serum.

It is possible to distinguish (with little exception) whether the father carries the double or the single dose of D. If the double dose, the risks attaching to another pregnancy are great, and preparation should be made for transfusion with Rh-negative blood immediately after birth. If the father possesses the single dose of D only, the next child has a 50% chance of escaping altogether; and it may prove possible to determine which gene the child has inherited by checking the anti-D titre of the mother's blood at intervals during the pregnancy.

As the couple are young and may well wish to have more children, it would be a good plan to carry out the investigations mentioned, together with any others necessary should the story prove more complicated than is usual.

Pseudo-hypertrophic Muscular Dystrophy

Q.—*Is there any cure or beneficial treatment for pseudo-hypertrophic muscular atrophy?*

A.—The only substance known to influence pseudo-hypertrophic muscular dystrophy is glycine, which needs to be given in doses of 25 to 30 g. a day for an adult. But in some cases the discontinuance of glycine results in rapid deterioration. C. N. Armstrong (*Newcastle med. J.*, 1938, **18**, 143) advises that glycine should be given only to females, and then only when the disease is rapidly progressive and the continuance of the treatment can be assured. Vitamin E, which has also been recommended, appears to be of no value.

Virilism and Schizophrenia

Q.—*A woman of 29 with schizophrenia has marked virilism. Is insulin treatment of the schizophrenia contraindicated by the adrenal condition?*

A.—No. Some degree of virilism in the female schizophrenic patient—e.g., increased hairiness—is normal to the psychosis. There is no satisfactory evidence that attempts at influencing adrenal output have any beneficial effect. The condition does not diminish the safety of insulin coma, or contraindicate its use.

Sunflower Seeds

Q.—*Where I practise there is a widespread belief that sunflower seeds have a powerful therapeutic effect. The husk is removed, and fifty or sixty seeds make an effective dose. Lassitude is banished and a feeling of well-being follows. I have myself experienced the sensation after taking the seeds. They are also given to children to abort colds, and are said to be effective in three or four hours. Has helianthus any place at all in the botanical pharmacopoeia?*

A.—Sunflower seeds are certainly edible, and resemble the hazel-nut in taste. In Hungary, where the flowers are grown extensively to mark boundaries between gardens and fields, the seeds are used for feeding pigs and chickens. It is also considered a wholesome practice for children to pick and eat the seeds. Undoubtedly, if the seeds were larger and the husks could be more easily removed they would come into more general favour for human consumption. We have, however, been unable to trace any previous record indicating that the sunflower possesses special therapeutic properties. The prescribed dose of 60 seeds, moreover, failed in our experience to elicit any noticeable response, good or bad, in a single male adult volunteer of 10 st. (63.5 kg.) body weight. It must not be forgotten that characteristic physiological and psychological effects may be produced by the use of other common seeds, notably those of the poppy and hemp. There is nothing inherently improbable, therefore, in the claim that the ingestion of sunflower seeds should lead to a feeling of well-being and to increased resistance to infection, although it would be surprising if any important therapeutic action should have escaped detection and general recognition for so long. The possibility that the seeds may have a beneficial action through the presence of some vitamin or other trace nutrient must be borne in mind, but this seems rather improbable in view of the very small dose of seeds which is prescribed, and the promptness of the alleged response.

Penicillin in Beeswax and Peanut Oil

Q.—*Twice recently in "Any Questions?" I have seen references to penicillin in beeswax and peanut oil. What are the formula, mode of sterilization, and dosage?*

A.—This method of administering penicillin, originally devised by Romansky and Rittman (for whose latest publication on the subject see *New Engl. J. Med.*, 1945, **233**, 577), has undergone various improvements. The preparation now in vogue in the U.S.A. consists of peanut oil containing 4.8% beeswax, in which calcium penicillin is suspended to give a concentration of 300,000 units per ml. To achieve this concentration and the better results which it is said to give, penicillin of a high degree of purity is required (about 1,000 units per mg.). The purity and the anhydrous quality of the peanut oil are also important, and mechanical means are now employed for suspending the penicillin in it. This is therefore not a material the preparation of which can be lightly undertaken; it is a job for the factory rather than the pharmacist.

The only advantage of this method of administration is that fewer injections are required—in the treatment of gonorrhoea only one. On the other hand it is wasteful, the dose given being considerably larger than that required to secure the same effect by a series of injections of an ordinary solution. It is doubtful whether the penicillin supply position in this country justifies its extended use for the mere sake of convenience in treating ambulatory patients; but its employment in order to give severely ill patients an uninterrupted night's sleep is another matter.

Interstitial Mastitis

Q.—*A single woman aged 46 had a subtotal hysterectomy two years ago. For two months she has complained of aching in the left breast; there is an area of typical interstitial mastitis involving the upper outer quadrant. What is the treatment?*

A.—It is probable that the best "treatment" in this case would be masterly inactivity. At the age of 46 the patient is menopausal, although this is obscured by the previous hysterectomy. After the menopause such a condition is likely to be less troublesome so far as pain goes, though the physical change in the breast remains unaltered. In the writer's experience the pain is not severe in itself, but the psychological state of the patient, who is inclined to worry unduly about the condition and may even have a cancerophobia, exaggerates the intensity of the symptoms. Reassurance is an important part of the treatment, but if the pain is sufficiently severe to warrant treatment, then a mild irradiation with *x* rays or with low-intensity gamma rays from radium or mesothorium pads is usually successful. Synthetic oestrogens are sometimes used nowadays, but irradiation is probably more certain. Needless to say, such a case will be kept under periodic observation in view of the possibility of malignant change.

Pleural Effusion and Artificial Pneumothorax

Q.—*Why do cases of pulmonary tuberculosis with an A.P. develop pleural effusions? Why is the effusion which accompanies an A.P. so persistent, while the effusion in a tuberculous patient who does not have an A.P. clears in two or three months?*

A.—Pleural effusion developing in a tuberculous patient is due to an allergic reaction of the pleura to tubercle bacilli discharged into it from a subpleural focus. The severity of the pleural reaction depends upon the degree of hypersensitivity of the patient and the size of the infecting dose. Effusions are more common in tuberculous patients with a pneumothorax, presumably because in such a case the subpleural focus can rupture into a free pleural space, whereas if the pleural layers are in contact surface inflammation may cause the focus to become adherent before it reaches the stage of rupture. An

effusion in a pneumothorax does not, as a rule, take longer to resolve than an effusion in a comparable patient without a pneumothorax.

Phenol in Oil

Q.—*Almond oil, the usual excipient for 5% phenol when used for injecting piles, is in short supply. Can one substitute (a) ol. arachis or (b) liquid paraffin?*

A.—Liquid paraffin is unsuitable, as mineral oils are sometimes not absorbed by the leucocytes and a granulomatous paraffinoma tumour may form. Oleum arachis is used, but sometimes it produces systemic upsets—giddiness, pyrexia, etc. It will quickly be displaced by almond oil when this becomes available again.

Treatment of Malarial Recurrences

Q.—*What is the best method of treating recurrences of (a) M.T. and (b) B.T. malaria?*

A.—Clinical manifestations of malaria can be controlled within a few days by either quinine or mepacrine. Relapses of benign tertian malaria may occur after either drug, but mepacrine will, if continued for two to three weeks after the acute attack has been suppressed, completely eradicate malignant tertian infection. Relapses of benign tertian malaria may be prevented by paludrine, but the drug is not ordinarily available. Pamaquin, although not influencing the relapse rate of malignant tertian infection, appears to reduce that of benign tertian malaria. As the blood level of mepacrine is built up but slowly it is advisable with this drug to use initial "loading" doses. With these facts in mind the following practical scheme may be laid down.

Malignant Tertian Malaria.—Mepacrine 0.3 g. after food thrice on the first day, 0.2 g. after food thrice on the second day, and 0.1 g. after food thrice daily for a further five days; this course should suppress the acute attack. To eradicate the infection the drug should be continued without interruption for a further three weeks in a daily dose of 0.1 g.

Benign Tertian Malaria.—Mepacrine for one week, in the dosage indicated above for the first week's treatment of malignant tertian infections—or quinine gr. 10 (0.65 g.) thrice daily for a week—with, in addition, pamaquin 0.01 g. thrice daily after food. Some prefer to give the pamaquin after the course of mepacrine is finished, lest these two drugs together prove too toxic, but they can usually be given simultaneously. There seems little to be gained by prolonged treatment of benign tertian infections, and reliance must be placed on treating each relapse as it appears. Any concomitant disease or infection should be dealt with, and the patient's general health and nutrition should be maintained at the highest level.

If, particularly in malignant tertian infections, there is any fear that the patient may not be absorbing the drugs given by mouth—if he is gravely ill, has persistent vomiting, severe headache, delirium, or any sign suggesting cerebral involvement—it is essential that the infection be controlled with the utmost rapidity. In such cases treatment should be initiated by parenteral administration of quinine bihydrochloride 5 to 10 gr. (0.32 to 0.65 g.) or mepacrine methanesulphonate 0.3 g. Usually one or two injections suffice to control the condition that made parenteral therapy necessary, after which the treatment may be continued by mouth, as already indicated.

INCOME TAX

Local Medical Society

"LAMBDA" explains that a considerable sum of money has been left to a local medical society, and asks whether, having regard to the objects of the society as set out in its printed rules and to the fact that "any surplus income" is given to medical charities, the income which the society will derive from the bequest will be liable to income tax.

⁂ In order to claim exemption it must be shown that the interest forms part of the income of "a body of persons or trust established for charitable purposes only" and that the income has been so applied (Income Tax Act, 1918, Sec. 37). A perusal of the society's rules suggests that the main purpose of the society is the promotion of the interests of a group of individuals rather than the advancement of those public interests which might bring the purposes within the definition of a "charity." This is, however, a subject on which it is dangerous to be dogmatic, and "Lambda" may be well advised to put his case to the Chief Inspector of Taxes, Marine Hotel, Llandudno. (Presumably a specific "trust" has been created by the deceased's will, the point in doubt being whether the purposes of that trust are "charitable.")

Liability after Demobilization

J. P. has been demobilized and will receive Army pay to April 24. He proposes to enter a partnership after a preliminary assistantship of three months. How will his liability to tax be dealt with?

⁂ During his assistantship J. P. will come under the "pay-as-you-earn" system and tax will be deductible from the payments due from his employers. For the period during which he is a partner the liability will fall under Schedule D—i.e., he will be liable to account to the other partners for his share of the tax payable by the firm in January and July, 1947. If, as is assumed to be the case, a car is necessary for the performance of his duties as an assistant and is being purchased before April 5, 1946, J. P. can claim to deduct from his civil earnings in 1945–6 20% of the cost as an "initial allowance," in addition to the percentage allowance for wear and tear for the period from the date of purchase to April 5, 1946. A visit to the office of the local inspector of taxes seems advisable in the somewhat complicated circumstances.

Employment after Demobilization

J. B. is a salaried assistant and inquires how the authorities arrive at the figures on which he is being taxed.

⁂ The amount of tax payable is determined by two factors: (*a*) what allowances and reliefs the taxpayer is entitled to claim, and (*b*) the amount of the income. As regards the former no doubt J. B. has made the necessary claims while in the Army, and the local taxing authorities may have been informed of any allowances due from civil earnings; as regards (*b*) tax is deductible from the earnings of employment by the employer, who, of course, knows the amount payable. After the end of the financial year the employer sends to the tax office particulars of the pay and tax deducted, and that office can then make an assessment for the past year. The address of the tax office can be ascertained from the employer, and, as J. B. suggests, a discussion with the income-tax employments officer there will no doubt be helpful.

Cost of Further Medical Studies

T. W. has recently been released from the Forces and is engaged on revision and extension of his medical studies with a view to "getting a higher degree and to earning more money." Are the expenses so incurred, including travelling to and from his residence, allowable?

⁂ It is not clear what are the taxable earnings from which T. W. seeks to deduct these expenses, but in so far as they are incurred to improve his professional knowledge and skill the expenses represent an outlay of capital and cannot be allowed for income-tax purposes. Normal current subscriptions would be allowable if set against general earnings assessable under Schedule D; if, however, T. W.'s earnings arise from a definite employment and are therefore assessable under Schedule E they would be allowable only if the employer requires him to be a member of the society or association in question.

Residence in Hospital

W. P. is medical superintendent of a hospital. His quarters are rent-free. The net rental value is assessed at £30 and W. P. is charged tax thereon. Is this correct?

⁂ We presume that the net rental value is at least £30. The legal position is that the Schedule A assessment on the hospital is exempted from tax, but subject to the retention as liable to tax of the value of any residential portion of the premises occupied by an individual having a total income of £160 or more. The tax on W. P.'s quarters is therefore properly due—whether it should be borne by W. P. or the hospital authority is a matter to be settled by themselves.

Pensioner Living Abroad

"INNOMINATE" will shortly be in receipt of a pension, and intends then to live abroad. Will that affect the allowances he can claim, and will income arising abroad be liable to United Kingdom income tax?

⁂ If he definitely ceases to be a British resident "Innominate," as a British subject residing abroad (whether within or outside the Empire), will be entitled to a proportion of the allowances in the ratio of his British (liable) income to his total income (liable and not liable). If, for instance, he begins to draw his pension as from, say, Oct. 1, 1946, and ceases to be a British resident before April 6, 1947, then for 1946–7 he will be liable on all his income and entitled to the full allowances, but for 1947–8 he will not be liable on income arising abroad but will be entitled to only a proportion of the allowances.

LETTERS, NOTES, ETC.

Treating Minors for V.D.

Dr. AIDAN REDMOND (London, S.W.10) writes: As a regular reader of "Any Questions?" I cannot allow to go unchallenged the heresy propounded in the answer to "Treating Minors for V.D." (Feb. 9, p. 226), that "defaulting nowadays is of less importance from the public health point of view than formerly, since even one injection of penicillin usually rapidly renders the patient non-contagious." This dogma of abortive cure leading to non-infectiousness by a single injection of penicillin reveals a tragic ignorance of the management of venereal diseases by modern or any methods, and such speculation savours more of wishful thinking than of any knowledge of the known and unknown factors of penicillin therapy in V.D. If venereal disease is treated on your assumption, in all probability we shall soon—if adequate treatment and follow-up are not demanded by the public health authorities—have a situation as uncontrolled as in the sulphonamide era. In any case the mere abolishing of infectiousness is a long way from solving the whole problem of venereal disease transmission, and the "persuasion and tact" you also suggest are as proven failures as the wartime outbursts of educational fervour by the Ministry of Health and Regulation 33B. Venereal disease is a disease of youth, so there will always be defaulters until a uniform policy—including compulsion, quarantine, and notification—for all cases is adopted and penicillin given in adequate therapeutic doses for the most controllable and treatable of all the infectious diseases.

Nicotinic Acid in Coronary Disease

Dr. A. HENRY GREGSON (Stamford) writes: With regard to the "contradictory reports" on nicotinic acid in coronary diseases (Feb. 9, p. 226) 300 mg. per diem orally with pot. iod. 10 gr. (0.65 g.) per diem and deep slow breathing using the accessory muscles of respiration will give a high proportion of relief, and even cure, of symptoms (I have seven 2-year "cures"—a lot for one practice). But once glycerin trinitrite has been used, one must increase the B. and reduce one's hopes in proportion to the length of time comfort has come before cure.

Home Remedies

Dr. DENIS F. MCCARTHY, medical officer of health, County Mayo, writes from Castlebar: It is with interest that I read of the various treatments given in "The Poor Man's Physician" in the *Journal* of Jan. 26 (p. 142). I was particularly interested in the "pap of the halse." About four years ago I had a married female patient who had extensive bilateral pulmonary tuberculosis with involvement of the larynx, with consequent hoarseness almost extending to aphonia (she had refused sanatorium treatment). One dispensary day her father attended and said that she was "not so well," and I said that I would visit her. To get to the house, which was in a very remote part of the county, one has to cross the seashore at low tide to reach a by-road, finally leaving this to drive for about a mile over a boulder-strewn beach. The woman was up and had her head swathed in cloths. Her mother informed me that because of her hoarseness they had called in Mr. —— "the wise man." He had informed them that "the tit of her throat" had fallen down but that he would lift it, and that then she would be all right. An egg was boiled for ten minutes and was then bound on to the crown of her head, where it was to remain for ten days. All this had happened four days previously. On investigation I found the egg *in situ* on her head. They were all pathetically confident that this treatment would be rapidly efficacious—a confidence which was not borne out by the event, as she died not long after. I have heard of and encountered several most peculiar home remedies —one especially being dangerous—but I had never previously met this particular one. Could it, I wonder, be suggested that this treatment throws an interesting sidelight on racial characteristics, the "canny Scot" using half an egg, and the less thrifty Irishman using a whole one?

Exercises to Prevent Chilblains

Dr. R. KENNETH MCALL writes from Edinburgh: During 3½ years' internment in China I tried out on patients with chilblains of the fingers exercises I had learnt from Chinese artists which they use to keep their fingers subtle. In camp not only did more than 100 find it preventive, but others who came with advanced swollen, cracked fingers found it curative. One extreme example was a man whose fingers were extremely swollen and whose wedding-ring was deeply embedded. I sent him off to get a file from the P.W.D., at the same time blaming him for not following the exercises that I had advertised on the public health notice board. Thirty-six hours later he returned with no chilblains; he had cured himself with intensive exercise. It is just this. Take two small round objects, or, more simply, two walnuts and play with them in one hand, working out such games as never letting them bump, or working them around each finger in turn without the assistance of the other hand. Whenever we were walking we played with them in the pocket, or at any idle moment or if writing played with them in the left hand. It was a common sound to hear the rattle of these nuts in the camp. Our rooms were sometimes below freezing; there was no heating, food was very low, and clothing a difficulty.

Coccygodynia or Proctalgia?

Dr. S. LEWIN (Birmingham) writes: Twelve years ago a male patient, 38 years old, was seen by me with symptoms identical with those described by Dr. T. Astley Cooper (Feb. 2, p. 192). Rectal examination showed piles of the first degree. The symptoms persisted and could be relieved only by 1/8 gr. (8 mg.) morphine suppository on retiring. Ten months later a small anal fissure was found on the posterior margin. On surgical treatment for this condition the symptoms completely disappeared, and so far there has been no recurrence.

Suturing the Abdominal Wall

"G.P." writes: After performing a number of surgical and gynaecological operations for twenty-five years, and coming across only one instance of a ruptured wound (in a case of ruptured duodenal ulcer in which *all* sutures were removed by mistake after nine days!), I think that one of your recent correspondents (Jan. 12, p. 66) has been singularly unfortunate. I admire his frankness in admitting that in six months two hysterectomies, a perforation, a hemicolectomy, a choledochotomy, and a rectal prolapse all went wrong so far as the suturing of the abdominal wall was concerned. But does it not appear more likely that undue haste, if not a fault in the very simple technique of stitching, has something to do with it? The surgeon with a list of eight or ten operations, and an eye on the clock, acts not like an expert paperhanger but a billposter. Most surgeons in my experience are careful so far as they are operating on the viscera, but when it comes to stitching up the abdominal wall they either leave it to inexperienced assistants or do it themselves so hurriedly that when the time for removing sutures comes the tragic results are laid bare for all to see, and the cough and the anaesthetic get the blame.

Applying for a Hospital Post

Mr. W. R. WELPLY, F.R.C.S. (Southport), writes: I heartily endorse the remarks made by Mr. A. Wallis Kendall (Jan. 26, p. 154) about the numbers of copies of applications required by certain hospitals from candidates for the various posts advertised in your and other journals. I wish to stress that, at the present time, so many senior as well as junior hospital staff appointments are vacant that a very high percentage of those medical and surgical members of the profession who are working, or wish to work, in hospitals are now applying for the advertised vacancies. One cannot, therefore, chance applying for one or two posts only, but has perforce to apply for ten, twenty, or maybe thirty, as the selections for these vacancies are almost all being made in April, May, or June. If one relied on one or two separate applications only and failed to be selected one would have lost the opportunity of applying for all those others being appointed the same month. As so many require multiple copies of applications and also of testimonials, it becomes well-nigh impossible to submit typewritten applications, and the whole thing has to be printed. Printing takes time, and it becomes necessary to order enough copies in advance to cover all the posts for which one intends to apply for the next six months at least. Consequently anything from 250 to 500 copies of application and testimonials must be purchased, and as the more "elegant the production," as Mr. Wallis Kendall points out, is generally considered to favour a candidate, it becomes necessary to demand the highest class of paper and workmanship from the printer. Few can achieve this at less than £15 15s., which is equivalent to a whole month's salary (considering income tax) for many of those applying. Many a young man cannot afford this and his chances are jeopardized. Certain teaching schools, such as Liverpool, require one copy of application only; why, then, must some of the London teaching hospitals demand sixty? Probably merely because it has always been done before: but times have changed. The B.M.A. stepped in and advised hospitals to wait four months from the date of advertising to the date upon which applications closed, and partly through this the present position has arisen whereby a large number of posts have all been advertised together. Surely the B.M.A. should now step in once more to ease the burden of the younger "specialists" as well as easing the position due to the paper shortage by advising hospitals to ask for a reasonable number of copies of applications and testimonials—say, six rather than sixty. It is not yet too late to make this move.

University Election

Prof. H. E. ROAF (Liverpool) writes: Some time ago I promised to support the candidature of Mrs. Stocks for the Parliamentary vacancy caused by the death of Miss Eleanor Rathbone. When I received Mrs. Stocks's election address I was appalled to see her views on the proposed health service. I have written to Mrs. Stocks withdrawing my support, and I want to state publicly that I can no longer support her candidature because of her attitude to an unknown proposal.